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# Upper Charley Subwatershed Ecosystem Restoration Projects

## Final Supplemental Environmental Impact Statement



USDA Forest Service  
Pacific Northwest Region

Umatilla National Forest  
Pomeroy Ranger District

December 2005

**Lead Agency:**

**USDA Forest Service**

**Responsible Official:**

**Kevin D. Martin, Forest Supervisor  
Umatilla National Forest  
2517 S.W. Hailey Avenue  
Pendleton, Oregon 97801**

**For Further Information  
Contact:**

**Monte Fujishin  
District Ranger  
Pomeroy Ranger District**



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# **Final Supplemental Environmental Impact Statement for Upper Charley Subwatershed Ecosystem Restoration Projects**

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**FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT**  
**for**  
**UPPER CHARLEY SUBWATERSHED**  
**ECOSYSTEM RESTORATION PROJECTS**  
**GARFIELD COUNTY, WASHINGTON**

**Abstract:**

This final environmental impact statement supplements the Upper Charley Subwatershed Ecosystem Restoration Projects final environmental impact statement (FEIS) released May 2002. With this document the Forest Service is proposing to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management direction (objectives, standards, and guidelines) for Canada Lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.

This final supplemental environmental impact statement (FSEIS) tiers to and references the 2002 FEIS and ROD. The two environmental impact statement documents therefore, must be thought of and used together as if they are one statement.

This FSEIS for Upper Charley Subwatershed Ecosystem Restoration Projects had been developed to provide information regarding changes in the environmental analysis that have occurred since the release of the Draft Supplemental Environmental Impact Statement (DSEIS) in July 2005. It includes comments on the DSEIS that were submitted by EPA, Oregon Natural Resources Council (ONRC), Hells Canyon Preservation Council, Friends of the Clearwater, The Lands Council, and Blue Mountain Biodiversity Project/League of Wilderness Defenders, and provides our response to those comments. Changes to the DSEIS are included in errata sheet(s) attached. Only comments, our responses, and changes need to be circulated (CFR 1500.4[m]). The entire DSEIS with a new cover sheet will be filed as the FSEIS (40 CFR 1503.4[c]). This FSEIS is intended to provide the basic information on changes and clarification that were made to the DSEIS in a concise, easily understandable manner.

Agency and public reviewers have provided the Forest Service with their comments on the DSEIS. All reviewers had been informed of their obligation to structure their participation in the National Environmental Policy Act process so that it is meaningful and alerts the agency to the reviewer's position and contentions [Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519,533 (1978)].

Lead Agency:	USDA Forest Service
Responsible Official:	Kevin D. Martin, Forest Supervisor Umatilla National Forest
Further Information:	Monte Fujishin, District Ranger Pomeroy Ranger District 71 West Main St. Pomeroy, WA 99347 (509) 843-1891 (voice) (509) 843-4621 (fax)



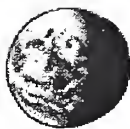


# **UPPER CHARLEY SUBWATERSHED ECOSYSTEM RESTORATION PROJECTS**

## **PUBLIC AND AGENCY LETTERS WITH COMMENTS**







Doug Heiken  
<onrcdoug@efn.org>

08/22/2005 02:37 PM  
Please respond to Doug  
Heiken

To: comments-pacificnorthwest-umatilla@fs.fed.us  
cc:  
Subject: ONRC comments on the Upper Charley SEIS for Lynx

FROM:  
Doug Heiken  
Oregon Natural Resources Council  
PO Box 11648 Eugene OR 97440  
541-344-0675

DATE: 22 Aug 2005

TO: Kevin Martin, Supervisor  
Umatilla National Forest  
2517 SW Hailey Ave.  
Pendleton, OR 97801  
comments-pacificnorthwest-umatilla@fs.fed.us

RE: ONRC comments on the Upper Charley SEIS for Lynx

Dear Forest Service:

ONRC objects to the project level adoption of the LCAS because the lynx policy has never been subjected to programmatic NEPA analysis. This policy is being adopted without question even though it has not been subjected to NEPA. Alternative means of conserving lynx have not been considered. The environmental consequences of the LCAS and alternatives have not been considered and compared.

Logging will almost certainly reduce lynx habitat in several significant ways. Logging will "capture mortality" and reduce current and future levels of down wood which lynx use for denning and which their prey species use for cover and other life needs. Reducing canopy cover will also degrade the dispersal value of the stands that are logged.

We also cannot see from the SEIS where the FS accurately disclosed the current condition of the lynx habitat. Suitable lynx habitat requires certain conditions be met and the EIS just asserts their presence with out documenting the field surveys which would be required to confirm the assumptions.

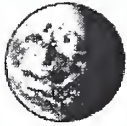
Please carefully review our Sept 20, 2004 scoping comments (attached). We cannot see how those comments were considered into the DSEIS.

Sincerely,  
/s/  
Doug Heiken

--

---

Doug Heiken  
Oregon Natural Resources Council  
PO Box 11648, Eugene OR 97440  
541-344-0675, onrcdoug@efn.org  
<http://www.onrc.org>



Doug Heiken  
<onrcdoug@efn.org>

08/22/2005 03:00 PM  
Please respond to Doug  
Heiken

To: comments-pacificnorthwest-umatilla@fs.fed.us  
cc: ldillavou@fs.fed.us  
Subject: Re: ONRC comments on the Upper Charley SEIS for Lynx

The attachment came through fine on the email I bcc'ed myself, so maybe the govt changed the way they handle incoming attachments.

Anyway here is the attachment pasted as plain text.

Doug

FROM:  
Oregon Natural Resources Council  
PO Box 11648 Eugene OR 97440  
541-344-0675

DATE: September 20, 2004

TO:  
Jeff Blackwood, Forest Supervisor  
Umatilla National Forest  
2517 SW Hailey Ave.  
Pendleton, OR 97801  
comments-pacificnorthwest-umatilla@fs.fed.us

Subject: LCAS Plan Amendment for Upper Charley Subwatershed Ecosystem Restoration

Dear Mr. Blackwood:

Oregon Natural Resources Council (ONRC) and Hells Canyon Preservation Council (HCPC) request that the following issues be considered in the scoping process for the Forest Plan Amendment to incorporate the Lynx Conservation Assessment and Strategy (LCAS) in support of the Upper Charley Subwatershed Ecosystem Restoration Projects, initiated in August 2004.

The purpose of the Forest Plan Amendment and Supplemental Environmental Impact Statement for the Upper Charley Projects is "to provide management direction to guide the conservation of Canada lynx consistent with new science and the Endangered Species Act." ONRC and HCPC appreciate this effort to finally undertake this process to consider how to best manage for lynx in this area. However, the agency should consider a wide range of alternatives and not rely completely on the conservation measures in the LCAS to protect lynx. Project-specific design and analysis is the best way to ensure that management is appropriate to the Upper Charley projects, and should be considered in the Supplemental EIS in addition to the more general measures that will be included in the Forest Plan Amendment.

Two specific recommendations we offer for ensuring appropriate management for lynx conservation are: 1) manage for lynx viability (i.e. recovery of a healthy population) not just survival; and 2) consider a wide range of management alternatives including managing all high elevation "snow zone" forests that support a prey base as lynx habitat. 3) do not look at the Upper Charley Project area or the Umatilla National Forest in isolation. Consider the cumulative effects of this

plan amendment in terms of the whole lynx range in this region.

Managing for lynx viability will require that the Umatilla National Forest recognize that the Umatilla is part of an essential zone of regional connectivity that supports movement between forest habitats in Washington, Idaho, and Oregon. This proposed plan amendment must also consider and disclose the effects of all forest management activities in terms of its effects on (1) lynx movement and travel corridors, (2) lynx denning and down wood, and (3) lynx foraging, including the adverse effects of various forest management activities on populations of small mammals and other potential lynx prey species.

The scope and requirements of the LCAS may not be adequate in this part of the lynx's range. The FWS White Paper says:

... The land management units are directed to use figure 8.20 as the outer boundary of lynx habitat. This figure incorporates approximately 67 percent of the lynx occurrences and was derived using an elevational cut-off of 4000 feet, and the Lenahan groupings for Rocky Mountain Conifer. The broadscale maps and percent of occurrences calculated in Chapter 8 were for the entire western United States and may not be accurate for individual geographic areas. (emphasis added)

In Response McKelvey and Aubry said "These statements are essentially correct."

<http://www.fs.fed.us/r6/mthood/projects/solo-borg/attachment-a.pdf> The LCAS is only a half-baked plan since the "outer boundary of lynx habitat" considered in the LCAS accounts for only 67% of the lynx occurrences range-wide and probably far smaller percentage in the State of Oregon. The LCAS needs to consider and adopt a specialized lynx management module for the southern part of the lynx's range that considers a wider range of lynx habitats and wider range of lynx prey.

The plan amendment and SEIS must consider any adverse affects on the quality of the habitat for denning, foraging, dispersal, and prey base. Studies have shown that forest health logging prescriptions have negative effects on small mammal species that constitute the lynx prey base. Evelyn Bull examined the results of a variety of harvest prescriptions on hares and found that in lodgepole stands the number of snowshoe hares decreased after all types of harvest. She reports that mixed conifer stands appear to be "no longer suitable for hares after harvesting". (Bull, E. and Blumton, A. 1999. Effects of Fuels Reduction on American Martens and Their Prey. USDA Forest Service PNW-RN-539. [http://www.fs.fed.us/pnw/pubs/rn\\_539.pdf](http://www.fs.fed.us/pnw/pubs/rn_539.pdf))

The Forest Service must not use the narrow view of lynx habitat described in the LCAS as represented only by large areas of subalpine fir. This view is not supported by the available science. Lynx habitat has been described broadly to include: "Rocky Mountain Conifer," or cold or moist "montane forests".

The LCAS itself recognizes that "In North America, the distribution of lynx is nearly coincident with that of snowshoe hares (McCord and Cardoza 1982, Bittner and Rongstad 1982)." In Oregon, the range of the snowshoe hare is quite broad occurring throughout the Blue and Wallowa Mountains, the Ochocos, Cascades and Coast Ranges, plus the lynx actually preys on a wider variety of small animals in the southern part of its range. Habitat for the snowshoe hare has shrunk by 27% over the last century but there are still almost 8.5 million hectares of hare habitat in Oregon. [http://egov.oregon.gov/DAS/OPB/docs/SOER2000/Ch3\\_11.pdf](http://egov.oregon.gov/DAS/OPB/docs/SOER2000/Ch3_11.pdf)

In addition, the agency has an obligation to respond to credible



opposing views such as these:

Lynx forage primarily in early-seral forests and in some mid-seral forests that support high numbers of prey; lynx also use late-seral forests for denning and rearing young as well as for hunting alternative sources of prey (Ruggiero and others 1999). Consequently, source habitats for lynx are provided by most of the coniferous forest structural stages with the exception of old-forest single-storied stands (vol. 3, appendix 1, table 1). Riparian woodlands and shrublands are also source habitats.

Hollow down logs are a special habitat feature for lynx (vol. 3, appendix 1, table 2); logs are used both as den sites and resting places (ICBEMP 1996 e, Koehler 1990). . . . Hann and others (1997) reported a decrease in abundance and occurrence of large down logs in areas of traditional forest management.

...  
Within the basin, several other predators (bobcat, red fox, and some hawk and owl species) compete with lynx for snowshoe hare as prey, unlike areas to the north; many of these competing predators possibly respond more positively to human-induced habitat alterations (Roloff 1995). This increased competition for prey may increase the vulnerability of lynx (Witmer and others 1998) as well as limit the size of lynx populations (Boutin and others 1986, Keith and others 1984).

Forest management practices have varying effects on both lynx and lynx prey habitat (Ruggiero and others 1999). Lynx do not hunt in large, open areas with little or no cover (Koehler 1990, Koehler and Brittell 1990), making large clearcut blocks potential barriers to movement (Koehler and Aubry 1994).

(Michael J. Wisdom, Richard S. Holthausen, et al. "Source Habitats for Terrestrial Vertebrates of Focus in the Interior Columbia Basin: Broad-Scale Trends and Management Implications," PNW-GTR-485; May 2000. Volume 2 page 78. <http://www.fs.fed.us/pnw/pubs/gtr485/gtr485v2a.pdf>)

The lynx habitat maps that the Forest Service has developed inappropriately exclude areas that have historically been used by lynx and are likely to be used by lynx today and/or in the future. The Forest Service has not offered a reasonable justification for excluding large areas of suitable habitat from the lynx habitat maps and for refusing to formally consult on projects in these areas.

Consider the following lynx maps:

Lynx BA: Lynx Records in Five Time Periods,  
<http://www.fs.fed.us/r1/planning/lynx/reports/ba/figure2.jpg>  
This map (and the four below) show historic and current lynx records in the Oregon Cascades and the Blue/Wallowas of NE Oregon.

USFS: historic lynx distribution:  
[http://www.fs.fed.us/r1/planning/lynx/maps/HistoricLynxOccurances1842\\_1998.jpg](http://www.fs.fed.us/r1/planning/lynx/maps/HistoricLynxOccurances1842_1998.jpg)

Lynx subpopulation estimates:  
[http://www.predatorconservation.org/%20Media/JPEG/lynx\\_estimates.jpg](http://www.predatorconservation.org/%20Media/JPEG/lynx_estimates.jpg)  
This map shows areas of lynx observations in the Oregon Cascades and NE Oregon.

PCA: Map of predator sightings:  
<http://www.predatorconservation.org/%20Media/JPEG/fcmap.jpg>

PCA: predator observations:

[http://www.predatorconservation.org/%20Media/JPEG/fc\\_sightings.jpg](http://www.predatorconservation.org/%20Media/JPEG/fc_sightings.jpg)

Lynx BA: Lynx Potential Habitat and Primary Areas of Occurrence (Primary Habitat) in the Conterminous United States,

<http://www.fs.fed.us/r1/planning/lynx/reports/ba/figure3.jpg>

This map shows lynx habitat (possibly unoccupied but suitable for recovery) in the Oregon Cascades and the Blue/Wallowas of NE Oregon.

Lynx BA: Likelihood of Supporting Lynx,

<http://www.fs.fed.us/r1/planning/lynx/reports/ba/figure4.jpg>

This map (and the one below) show moderate and higher likelihood of supporting lynx in the Cascades and lower likelihood in the Blue/Wallowas (but the forests of NE Oregon are a likely migratory pathway to support movement of lynx from Idaho into the Cascades (far more likely than moving from the Washington Cascades across the Columbia River, two highways, and two railroads) so the Blue/Wallowas should also be included in the critical habitat designation.)

Lynx BA: Current plan direction and likelihood of supporting lynx,

<http://mountain-prairie.fws.gov/species/mammals/lynx/BA%20Figure%205%20current%20plan%20direction.jpg>

Lynx BA: connectivity potential,

<http://mountain-prairie.fws.gov/species/mammals/lynx/BA%20Figure%206%20connectivity%20potential.jpg>

This map shows the critical importance of NE Oregon forest for lynx connectivity, especially considering the connectivity problems for lynx attempting to move from the southern Washington Cascades to the northern Oregon Cascades across the Columbia River, two highways, two rail lines, and also an area of high density recreation use.

FWS Lynx map:

[http://mountain-prairie.fws.gov/species/mammals/lynx/lynx\\_map.pdf](http://mountain-prairie.fws.gov/species/mammals/lynx/lynx_map.pdf)

This FWS map shows the Oregon Cascades as an area of primary lynx occurrence.

USFS: vegetation and elevation associated with lynx:

[http://www.fs.fed.us/r1/planning/lynx/maps/Veg\\_lg.jpg](http://www.fs.fed.us/r1/planning/lynx/maps/Veg_lg.jpg)

This map shows lynx habitat associations in the Oregon Cascades and NE Oregon.

Other comments:

A 2001 "clarification" of the LCAS deleted the requirement to rest fire areas from livestock grazing until regeneration occurs. The Umatilla National Forest should reject this "clarification" or follow NEPA to explain alternatives to and the consequences of this change.

Please refer to our prior comments and appeal (attached) of the Upper Charley project for other issues and concerns with this project. For instance, our appeal said:

This area of the Umatilla National Forest is a critical regional connectivity corridor that serves to allow wide-ranging species like Canada lynx, wolf, goshawk, etc. to move safely between suitable habitat in SE Washington and NE Oregon. The members of ONRC want to see this area of Washington managed to welcome lynx to Oregon. The project area is in the Asotin Lynx Analysis Area (LAU).

The Upper Charley Project will adversely affect the functioning of this connectivity corridor for migration, foraging, and denning by converting at least 390 acres of suitable lynx habitat into unsuitable habitat, by reducing prey availability, and by reducing present and future denning habitat.

1. The Upper Charley EIS does not adequately address the impacts of, or alternatives to, the proposed logging activities. For instance, the EIS relies on modified lynx mapping criteria that exclude the impact of certain activities in certain areas from scrutiny as to their impacts on lynx and lynx habitat. The EIS also relies on the Lynx Conservation Assessment and Strategy (LCAS) and certain lynx-related "Project Design Criteria" that has never been subject to NEPA analysis.

2. Consultation with the FWS on the impacts of the Upper Charley Project on lynx has also been rendered inadequate by the NEPA violation listed above.

3. The lynx situation is very analogous to the spotted owl situation a decade ago. The Forest Service is coming up with species management plans without going through NEPA analysis.

4. The Forest Service has not rigorously applied the LCAS in this project. The Forest Service finds that 9866-acres of the Asotin LAU are suitable denning habitat but the Forest Service has not actually site-specifically analyzed the habitat to make sure that it meets all the required characteristics for suitable denning habitat such as adequate down wood.

5. Upper Charley ROD Appendix C, page C-2 says that there are 986 acres of denning habitat, but page C-3 says the latest mapping work shows that there isn't any denning habitat. Which is correct?

6. Upper Charley ROD Appendix C repeatedly says that the project is "aimed at achieving an appropriate HRV" but the LCAS requires management within a certain percentage of the "midpoint HRV." "Midpoint HRV" and "appropriate HRV" are never reconciled in the analysis. NEPA requires disclosure of information necessary to determine compliance with legal requirements such as the Endangered Species Act, Clean Water Act, National Forest Management Act, and applicable Forest Plan Standards & Guidelines. See 40 CFR 15087.27(b)(10) and NW Indian Cemetery Protective Association v. Peterson, 795 F2d 688 (9th Circ. 1986).

7. The Upper Charley EIS also dismisses without proper analysis the possibility that livestock grazing may adversely impact lynx habitat suitability.

8. The Upper Charley project intends to use shelterwood group selection harvest (i.e. small clearcuts) to increase habitat for lynx prey species such as snowshoe hare. The FEIS failed to consider the alternative of using prescribed natural fire to accomplish the same thing, if necessary. The Forest Service also failed to evaluate the habitat value of existing stands for prey species other than snowshoe hare. There is a trade-off between regen harvest to gain a temporary burst of snowshoe hare habitat in 20-25 years vs. the short- mid- and long-term value of habitat for alternate lynx prey species if the no action alternative were selected. This trade-off was not evaluated in the Upper Charley NEPA analysis.

Thank you for this opportunity to comment on this proposal. Please be sure our organizations receive all future notice for the Forest plan amendment and Supplemental EIS processes.



Sincerely,

/s/

Doug Heiken

Monte Fujishin, District Ranger  
Pomeroy Ranger District  
71 Main St  
Pomeroy WA 99347

June 12, 2000

Subject: ONRC comments on the Upper Charley DEIS

Dear Mr. Fujishin:

Please accept the following comments from Oregon Natural Resources Council Action and Oregon Natural Resources Council Fund (ONRC) concerning the Upper Charley DEIS dated April 2000.

Whew! There's hardly a square inch of this watershed that you are not proposing to manipulate in some way. You say this is so that you can leave it alone for a longer period, BUT ONLY 20 YEARS!? Please plan this out so that you can reintroduce fire and keep the chainsaws out of the area for a lot longer than 20 years. Use lighter-on-the-land approach. Leave some thickets, and snag patches, and leave all the big trees.

We are concerned that the scale of the project in terms of both acreage and volume are too large to be adequately analyzed at the site-specific level in the EIS. The EIS is necessary for the mid-scale of analysis, but further EAs or EISs should also be completed to accomplish more site-specific documentation of the resources at stake and the environmental consequences of the proposed action.

#### ROADLESS CONCERNS

Roadless areas greater than about 1,000 acres, whether they have been inventoried or not provide valuable natural resource attributes that must be protected. These include: water quality; healthy soils; fish and wildlife refugia; centers for dispersal, recolonization, and restoration of adjacent disturbed sites; reference sites for research; non-motorized, low-impact recreation; carbon sequestration; refugia that are relatively less at-risk from noxious weeds and other invasive non-native species, and many other significant values. This project involves activities in such unroaded areas. The NEPA analysis for this project does not adequately discuss the impacts of proposed activities on all the many significant values of roadless areas.

An EIS is needed to consider the significant environmental impacts of proposed activities in roadless areas.

#### SNAGS AND CAVITY DEPENDENT SPECIES

Current direction for protecting and providing snags does not meet the needs of the many species associated with this unique and valuable habitat component. See PNW Research Station, "Dead and Dying Trees: Essential for Life in the Forest," Science Findings, Nov. 1999. Bats, martens, woodpeckers, bears, and many other species are dependant upon

snags. Snags should be carefully inventoried by species, size, decay status, quality, and location during project planning, and they should be treated as "special habitats" and given special protection during project planning and implementation (i.e. keep workers out of the vicinity of snags so that OSHA doesn't order them cut). The EA does not adequately address the need to protect and provide snag habitat.

The snag retention requirements in the applicable management plan Standards & Guidelines for this project fail to retain enough snags to provide habitat for viable populations of cavity dependent species. Since snags have a patchy spatial distribution, surveys to determine snag abundance require very large sample sizes relative to other general vegetation surveys. This was not recognized until relatively recently, so most past surveys conducted to determine natural snag abundance have therefore grossly underestimated the true abundance of snags. This has lead the Forest Service to underestimate the number of snags necessary to protect species. This new information must be disclosed and documented in a EIS and it requires a forest plan amendment.

The Forest Service must do away with the caveat that they will protect snags "except where they create a safety hazard." This is based on a false choice between snags and safety. The Forest Service can just buffer snags from activities that involve workers, then all ecologically important snags can be protected. The Forest Service must consider this as an alternative to their proposed "management by caveat." The EA must at least disclose how many large snags will be protected vs. felled for safety under the preferred alternative.

#### GRAZING AND FOREST HEALTH

The planning area includes 317 cow/calf pairs that use the Peola C&H Allotment.

This project does nothing to address the threat that livestock grazing causes to forest health. There is virtually no point in trying to mechanically reduce tree density unless you deal with other underlying causes of overstocking, e.g. livestock grazing.

Grazing reduces the density and vigor of grasses which usually outcompete tree seedlings, leading to dense stands of fire-prone small trees. Cows also decrease the abundance of fine fuels which are necessary to carry periodic, low intensity ground fires. This reduces the frequency of fires, but increases their severity. See Belsky, A.J., Blumenthal, D.M., "Effects of Livestock Grazing on Stand Dynamics and Soils in Upland Forest of the Interior West," Conservation Biology, 11(2), April 1997.

The EA failed to address these issues and failed to consider alternative ways of avoiding these impacts by not grazing. Grazing and logging are connected actions and must be considered together in one EA.

#### WATER QUALITY

Further logging in this watershed threatens further violations of state water quality standards. This triggers an EIS and also requires that a TMDL/water quality management plan precede further actions that could increase stream temperature, nutrients, or sediment.

The EA must address the cumulative effects of logging and grazing on water quality and discuss the fact that further grazing will retard the attainment of riparian and aquatic management objectives in violation of the applicable land management plan as amended.

## SOILS CONCERNS

Soil productivity must be zealously guarded in order to protect our forests for future generations. This project will cause unacceptable impacts to soil resources. Use of ground-based logging equipment almost always compacts soil causing reduced site productivity, drastically altered soil food web relationships, reduced infiltration, and increase surface runoff. Spring burning can also be very harmful to soil and the thousands of creatures that live all or part of their lives in the soil profile. The EA needs to consider these impacts and consider alternative ways to avoiding these impacts.

Soil disturbance caused by logging also causes erosion that adversely impacts both soil and water resources. The existing level of soil disturbance has not been measured and disclosed in the EA so the Forest Service cannot say with any factual basis whether forest plan standards will be met. This is arbitrary and capricious. Existing soil impacts must be measured and future impacts estimated so that an adequate cumulative effects analysis can be prepared and included in a supplemental EIS.

An EIS is needed to address these significant soil issues.

## LET'S NOT BE HOMOCENTRIC ABOUT FOREST HEALTH

Some species like thickets and snags. Snowshoe hares like thickets and therefore so do Lynx. Many species, including woodpeckers and bats and martens like an abundance of snags and down logs, so a forest that is literally falling apart might be great for them. We should not impose our human vision of neatness and order on the sometimes chaotic and "messy" patterns of nature which work just fine for many species

## CUMULATIVE EFFECTS

The EA fails to fully disclose the cumulative effects of livestock grazing, timber harvest, prescribed fire, and road developments on water quality, forest health, wildlife habitat, noxious weeds, cultural resources, and other resources.

## DISCLOSURE OF COMPLIANCE WITH SUBSTANTIVE REQUIREMENTS

NEPA requires disclosure of information necessary to determine compliance with legal requirements such as the Endangered Species Act, Clean Water Act, National Forest Management Act, and applicable Forest Plan Standards & Guidelines. See 40 CFR 15087.27(b)(10) and NW Indian Cemetery Protective Association v. Peterson, 795 F2d 688 (9th Circ 1986).

## SPECIES VIABILITY CONCERNS

USDA policy does not allow the Forest Service to take actions that would cause trends toward listing species under the Endangered Species Act. Relevant policy directs the Forest Service to: "1. Manage 'habitats for all existing native and desired non-native plants, fish, and wildlife species in order to maintain at least viable populations of such species.' 2. Habitat must be provided for the number and distribution reproductive individuals to ensure the continued existence of a species generally throughout its current geographic range." FSM 2620.1 and USDA Department Regulation 9500-4 (August 22, 1983. Forest Service objectives are to "provide a sound base of information to support management decision-making affecting wildlife and fish, including endangered, threatened, and sensitive animal and plant species, and their habitats."

FSM 2620.2. Forest Service policy is to "use management indicators to address . . . species habitat through all planning levels." FSM 2620.3. The USDA also requires that the Forest Service "avoid actions which may cause a species to become threatened or endangered." DR 9500-4(3)(d).

#### FIRE ECOLOGY / FUELS MANAGEMENT CONCERNS

The EA fails to acknowledge that logging often increases fine fuel loads while removing the large logs that are relatively less prone to burn. Thinning also increases wind and light penetration of the canopy and causes fuels to dry out which make them more prone to burn and increases the time it takes woody material to decompose.

Logging very likely will have little effect on the severity or controllability of large intense canopy fires that are of most concern both environmentally and economically. If proposed logging has any effect it will likely lead to increased controllability of low intensity ground fires, but these lower intensity fires are precisely the fires that are beneficial ecologically and should probably not be controlled. So logging will help control fires which should remain wild and free, while logging will fail to control that which is most destructive.

Logging also has many effects that fires do not have. Soil compaction, roads, weeds, etc.

It would be better to just do a controlled prescribed burn at the right time of year without logging. The EA should have considered such an alternative.

#### LYNX

Higher elevations in the planning area include subalpine fir plant communities which provide habitat for lynx. Please be sure to protect lynx, consult on impacts to lynx and lynx habitat, and expand the EIS discussion of potential and cumulative impacts to lynx.

#### NO RIP RAP.

We oppose the placement of rip rap along streams. If a road needs rip rap to protect it than it's in the wrong place. Protect the stream. Close the road.

Sincerely,

Doug Heiken  
Western Oregon Field Representative

June 22, 2002

Attn 1570 Appeals  
Harv Forsgren  
PNW Regional Forester  
PO Box 3623



Portland OR 97208

Subject: 36 CFR 215 appeal of the Upper Charley Subwatershed ROD

Dear Mr. Forsgren:

In accordance with 36 CFR 215, Oregon Natural Resources Council Fund (ONRC or Appellant) hereby appeals the Forest Service's decision to approve the project described below.

DECISION TITLE: Upper Charley Subwatershed Ecosystem Restoration final Environmental Impact Statement and Record of Decision.

PROJECT DESCRIPTION: 2102 acres of uneven aged management, 717 acres of thinning, 363 acres of shelterwood group selection, 1523 acres of harvest are proposed for ground-based logging, 5.23 miles of "temporary" road construction, 11.5 miles of road reconstruction, 22.67 miles of road obliteration,

PROJECT LOCATION: Pomeroy Ranger District, Umatilla National Forest, Garfield County, Washington.

DATE OF DECISION: March 14, 2002

NAME OF DECIDING OFFICER: Monte Fujishin, Pomeroy District Ranger

APPELLANTS' INTEREST: In accordance with Pub. L. 102-381, Title III, Sec. 322(c), Oct. 5, 1992 and 36 CFR 215.11, ONRC submitted comments on, and expressed interest in, this project and is entitled to appeal. Members of ONRC use and enjoy the area affected by this project for various recreational, esthetic, and scientific pursuits including but not limited to: hiking, photography, nature study, solitude, bird watching, fishing, and hunting.

REQUEST FOR RELIEF: ONRC respectfully requests that the Forest Service withdraw the decision being appealed and -

1. issue a new decision that avoids logging and road building in all potential lynx habitat, unroaded, mature, and old-growth forests and protects habitat for native species of terrestrial and aquatic flora and fauna; or
2. prepare a new EIS that fully complies with the requirements of NEPA and the CEQ regulations and fully analyzes the concerns set forth below in the statement of reasons.

REQUEST FOR STAY: In accordance with 36 CFR 215.10(b) all implementation of this project must cease until 15 days after the appeal is decided.

STATEMENT OF REASONS:

#### LYNX CONCERNS

This area of the Umatilla National Forest is a critical regional connectivity corridor that serves to allow wide-ranging species like Canada lynx, wolf, goshawk, etc. to move safely between suitable habitat in SE Washington and NE Oregon. The members of ONRC want to see this area of Washington managed to welcome lynx to Oregon. The project area is in the Asotin Lynx Analysis Area (LAU).

The Upper Charley Project will adversely affect the functioning of this connectivity corridor for migration, foraging, and denning by converting at least 390 acres of suitable lynx habitat into unsuitable habitat, by

reducing prey availability, and by reducing present and future denning habitat.

9. The Upper Charley EIS does not adequately address the impacts of, or alternatives to, the proposed logging activities. For instance, the EIS relies on modified lynx mapping criteria that exclude the impact of certain activities in certain areas from scrutiny as to their impacts on lynx and lynx habitat. The EIS also relies on the Lynx Conservation Assessment and Strategy (LCAS) and certain lynx-related "Project Design Criteria" that has never been subject to NEPA analysis.

10. Consultation with the FWS on the impacts of the Upper Charley Project on lynx has also been rendered inadequate by the NEPA violation listed above.

11. The lynx situation is very analogous to the spotted owl situation a decade ago. The Forest Service is coming up with species management plans without going through NEPA analysis.

12. The Forest Service has not rigorously applied the LCAS in this project. The Forest Service finds that 9866 acres of the Asotin LAU are suitable denning habitat but the Forest Service has not actually site-specifically analyzed the habitat to make sure that it meets all the required characteristics for suitable denning habitat such as adequate down wood.

13. Upper Charley ROD Appendix C, page C-2 says that there are 986 acres of denning habitat, but page C-3 says the latest mapping work shows that there isn't any denning habitat. Which is correct?

14. Upper Charley ROD Appendix C repeatedly says that the project is "aimed at achieving an appropriate HRV" but the LCAS requires management within a certain percentage of the "midpoint HRV." "Midpoint HRV" and "appropriate HRV" are never reconciled in the analysis. NEPA requires disclosure of information necessary to determine compliance with legal requirements such as the Endangered Species Act, Clean Water Act, National Forest Management Act, and applicable Forest Plan Standards & Guidelines. See 40 CFR 15087.27(b)(10) and NW Indian Cemetery Protective Association v. Peterson, 795 F2d 688 (9th Circ. 1986).

15. The Upper Charley EIS also dismisses without proper analysis the possibility that livestock grazing may adversely impact lynx habitat suitability.

16. The Upper Charley project intends to use shelterwood group selection harvest (i.e. small clearcuts) to increase habitat for lynx prey species such as snowshoe hare. The FEIS failed to consider the alternative of using prescribed natural fire to accomplish the same thing, if necessary. The Forest Service also failed to evaluate the habitat value of existing stands for prey species other than snowshoe hare. There is a trade-off between regen harvest to gain a temporary burst of snowshoe hare habitat in 20-25 years vs. the short- mid- and long-term value of habitat for alternate lynx prey species if the no action alternative were selected. This trade-off was not evaluated in the Upper Charley NEPA analysis.

#### GRAZING AND FOREST HEALTH

The project area encompasses the Peola C&H Grazing Allotment.

This project does nothing to address the threat that livestock grazing causes to forest health. There is virtually no point in trying to

mechanically reduce tree density unless you deal with other underlying causes of overstocking, e.g. livestock grazing. The NEPA document describes the effects "on" range resources (e.g., fences and transitory range) but fails to disclose or analyze the effects "of" livestock on forest health and the desired future condition of vegetation composition.

Grazing reduces the density and vigor of grasses which usually outcompete tree seedlings, leading to dense stands of fire-prone small trees. Cows also decrease the abundance of fine fuels which are necessary to carry periodic, low intensity ground fires. This reduces the frequency of fires, but increases their severity. See Belsky, A.J., Blumenthal, D.M., "Effects of Livestock Grazing on Stand Dynamics and Soils in Upland Forest of the Interior West," Conservation Biology, 11(2), April 1997. <http://www.onda.org/Archives/ForestGrazing.htm>

The NEPA document failed to address these issues and failed to consider alternative ways of avoiding these impacts by not grazing. The combination of fire suppression, past high-grading, and livestock grazing together caused the overstocked condition of the stands in the analysis area. Logging and prescribed fire will only partially address the problem. To be effective, livestock grazing must also be eliminated. Grazing and logging cause cumulative effects that must be considered together in one NEPA document.

#### SNAGS AND CAVITY DEPENDENT SPECIES

The Upper Charley EIS claims to be managing snags to maintain 100% population potential for cavity nesters, but it fails to disclose or project actual numbers and types of snag or the latest science on the number and types of snags required to maintain population numbers.

Bats, martens, woodpeckers, bears, and many other species are dependant upon snags. Current direction for protecting and providing snags does not meet the needs of the many species associated with this unique and valuable habitat component. See PNW Research Station, "Dead and Dying Trees: Essential for Life in the Forest," Science Findings, Nov. 1999 (<http://www.fs.fed.us/pnw/science/scifi20.pdf>) ("Management implications: Current direction for providing wildlife habitat on public forest lands does not reflect findings from research since 1979; more snags and dead wood structures are required for foraging, denning, nesting, and roosting than previously thought.") Current science shows that 4 snags/acre minimum are required for 100% population potential for woodpecker species associated with snag cavities. Wolf Vegetation Management EA, Wallowa-Whitman National Forest, May 2001, page 57. "Historic snag levels could have been much higher, closer to 6-14 snags/acre. (Harrod, Gaines, Hartl, and Camp, 1998)." Goose EA, Wallowa-Whitman National Forest. Additional snags should be left because illegal firewood cutting is almost certain to take a heavy toll on snags over the next several decades.

Snags should be carefully inventoried by species, size, decay status, quality, and location during project planning, and they should be treated as "special habitats" and given special protection during project planning and implementation (i.e. keep workers out of the vicinity of snags so that OSHA doesn't order them cut). For instance, the May 2001 Wolf Vegetation Management Project on the Wallowa-Whitman National Forest includes a mitigation measure protecting trees from being harvested if they are near hazardous snags >15 inches dbh. The NEPA document does not adequately address the need to protect and provide snag habitat.

The snag retention requirements in the applicable management plan Standards & Guidelines for this project fail to retain enough snags to provide habitat for viable populations of cavity dependent species. Since snags have a patchy spatial distribution, surveys to determine snag abundance require very large sample sizes relative to other general vegetation surveys. This was not recognized until relatively recently, so most past surveys conducted to determine natural snag abundance have therefore grossly underestimated the true abundance of snags. This has lead the Agency to underestimate the number of snags necessary to protect species. This new information must be disclosed and documented in a EIS and it requires a forest plan amendment.

The EIS must at least disclose how many large snags will be protected vs. felled for safety under the preferred alternative.

#### SOILS CONCERNS

This project involves 1523 acres ground-based logging and 5 miles of temporary road construction and fails to curtail livestock grazing. In combination, these activities will cause serious cumulative impacts to soils in violation of regional soil standards.

According to the regional guidelines soils in 80% of an activity area must be maintained in a non-compacted, non-displaced, and non-puddled condition. Soils must be "maintained," not "mitigated" or "restored" to attain that objective. Mitigation should not be used as an excuse for violation of the regional soil guidelines.

Scarification, ripping, and subsoiling does not alleviate the following negative impacts, therefore not completely mitigating:

- compaction of soil and alteration of the soil ecosystem;
- alteration of hydrology, water storage, flow, timing, from soil compaction;
- alteration or loss of native plant communities, and tendency to create conditions which favor noxious weeds or other non-native plants;
- disruption of soil foodweb and biotic communities that serve important soil functions and processes such as aeration, nutrient cycling,

Soil productivity must be zealously guarded in order to protect our forests for future generations. This project will cause unacceptable impacts to soil resources. Use of ground-based logging equipment almost always compacts soil causing reduced site productivity, drastically altered soil food web relationships, reduced infiltration, and increase surface runoff. Spring burning can also be very harmful to soil and the thousands of creatures that live all or part of their lives in the soil profile. The EA needs to consider these impacts and consider alternative ways to avoiding these impacts.

Ground-based logging causes higher incidences of root damage and scarring of residual trees (compared to skyline systems). Kellog, L., Han, H.S., Mayo, J., and J. Sissel, "Residual Stand Damage from Thinning- Young Stand Diversity Study," Cascade Center for Ecosystem Management.

Soil disturbance caused by logging also causes erosion that adversely impacts both soil and water resources. The existing level of soil disturbance has not been measured and disclosed in the EA so the Agency cannot say with any factual basis whether forest plan standards will be met. This is arbitrary and capricious. Existing soil impacts must be measured and future impacts estimated so that an adequate cumulative



effects analysis can be prepared and included in a supplemental EIS.

Sincerely,

Doug Heiken  
Western Oregon Field Representative





Friends of the  
Clearwater  
<foc@wildrockies.org>

08/22/2005 03:52 PM

To: comments-pacificnorthwest-umatilla@fs.fed.us  
cc:  
Subject: Upper Charley DSEIS

Kevin D. Martin  
Forest Supervisor  
2517 SW Hailey Avenue  
Pendleton, OR

August 22, 2005

SENT VIA EMAIL TO: comments-pacificnorthwest-umatilla@fs.fed.us

Dear Supervisor Martin:

Enclosed are comments from the Lands Council, Oregon Natural Resource Council (supplements additional comments), Blue Mountains Biodiversity Project/League of Wilderness Defenders, and Friends of the Clearwater on the Upper Charley DSEIS. Please incorporate, by reference, all the past comments on this project from these organizations. This is important as the DSEIS only deals with the issue of the forest plan amendment for lynx. As such, these comments are mainly directed at the amendment issue. Our previous comments combined with these comments are to be viewed together in context of the whole proposal.

#### Adequacy of the DSEIS

Past scoping comments on this proposed amendment/DSEIS addressed several crucial factors that have been ignored in the DSEIS. Rather than repeat those comments, we offer examples and a summary of how the DSEIS has ignored input and failed to look at alternatives. Scoping comments (ONRC) noted with regard to this DSEIS:

*However, the agency should consider a wide range of alternatives and not rely completely on the conservation measures in the LCAS to protect lynx. Project-specific design and analysis is the best way to ensure that management is appropriate to the Upper Charley projects, and should be considered in the Supplemental EIS in addition to the more general measures that will be included in the Forest Plan Amendment.*

The DSEIS fails in this regard. As we explain below, there were not additional measures adopted to protect areas possessing lynx habitat. Rather, the DSEIS continues the problems in the FEIS and ROD by adopting measures which use modified lynx mapping criteria that exclude the impact of certain activities in certain areas from scrutiny as to their impacts on lynx and lynx habitat all under the rubric of these areas are not that important for lynx.

For example, the lynx habitat mapping direction which is assumed in the LCAS provides inappropriately narrow standards for identifying lynx habitat. This is especially true in areas like the Umatilla that have apparent lynx habitat (adequate snowfall) that does not fit into a prescribed forest type or elevation (above 4,000 feet). The adoption of forest types and elevation levels for surrogates of lynx habitat has never gone through NEPA analysis including this

DSEIS.

Some of the most persistent sightings and confirmed records for lynx in adjacent areas important for regional connectivity (another issue ignored in the DSEIS) include elevations below 4,000 feet. While occurrence records may not necessarily indicate the most favorable habitat, it is unwise to eliminate those areas from protective standards since the species is listed under the ESA and any occurrence is important for the species survival.

Furthermore, what we think we may know about lynx habitat could be wrong. If lynx are occurring in areas outside of what we normally think of as habitat, then we had better change our definition of habitat. This is especially true in areas like the Umatilla where the records of lynx occurrence are often in areas not currently meeting the very constrained definition of lynx habitat that is assumed in the LCAS.

A couple of specific examples from nearby Idaho illustrate this point.

The Palouse Ranger District (managed by the Clearwater National Forest), an area very close to the Umatilla National Forest, has no mapped lynx habitat in LAUs. It is instructive to note a lynx and her kittens which were illegally killed in 1991 on the Palouse Ranger District and were found in an area well below the 4,000 foot level. This is clear evidence of breeding and contradicts the assumptions made in the DSEIS about both lynx presence in this part of the world and whether lynx are dispersers or breeders.

The Forest Service's own document, *The Scientific Basis for Conserving Forest Carnivores, American Marten, Fisher, Lynx, and Wolverine in the Western United States* (GTR R-254, Ruggiero et al. 1994) concludes lynx are indeed present on the Umatilla National Forest (page 178). At a minimum, this DSEIS should have evaluated the validity of a couple of different assumptions:

1- Lynx are rare and/or extirpated in the Umatilla National Forest because of human factors (management activities, decline of connectivity with other habitat areas in Washington, Oregon and Idaho, historical trapping, and others) and not because the Umatilla was not historically habitat for lynx (though probably in low numbers).

2- Lynx are rare and/or extirpated in the Umatilla National Forest because the area never was occupied habitat and only was a dispersal corridor during years with high lynx numbers further north.

Instead of considering both of these assumptions as their relative merits, the agency adopted the second conclusion without evaluation.

Thus, the DSEIS has failed to look at a range of alternatives regarding lynx and their habitat. This problem permeates the DSEIS.

Other failures to adequately address issues raised during scoping include two suggestions that have been given short shrift. The first is managing the area for lynx viability (i.e. recovery of a

healthy population) rather than mere survival. The second was to consider a range of management alternatives including managing all "snow zone" forests that support a prey base as lynx habitat, not just the areas that fall within certain forest habitat types.

5

This failure is crucial as the DSEIS relies on the science underlying the LCAS without evaluating recommendations from the LCAS as to their adequacy in this site-specific instance on the Umatilla National Forest. This is crucial because the DSEIS leads one to believe the Umatilla has less suitable habitat for lynx than adjacent national forests. As such, even the standard protections in the LCAS may be inadequate in this area that is even more sensitive than habitat where studied lynx populations exist.

The DSEIS also fails to answer questions about conflicting information in lynx habitat within the project area raised in scoping comments. Is there any denning habitat within the project area or not? It seems there is a moving target with regard to lynx habitat on the Umatilla National Forest and the DSEIS does not clarify the situation.

6

Similarly, the DSEIS is not clear whether livestock will be excluded from logged openings and/or burns and as to how this would be done. Earlier comments asked that this issue be better addressed and clarified.

7

In cases like here on the Umatilla where actions that harm to individual lynx are numerous and widespread, and/or in cases where there are very few lynx in a population, common sense indicates those actions surely harm the lynx population. For the Forest Service to maintain that some threats to lynx may harm individual lynx, but do not threaten populations as it claims in many places in the DSEIS and for the Forest Service to consequently approve any actions that may harm individual lynx, the Forest Service must provide peer-reviewed scientific data that population-level impacts will not occur. We know of no such evidence for lynx or other species where they exist at similarly low numbers and with a similarly low reproductive rate.

8

#### Significance of Amendment

The DSEIS is not clear whether this amendment is "significant" under NFMA. We ask this question because it appears the FS is engaging in a pattern of doing several site-specific amendments on the Umatilla in lynx habitat. The failure to consider those amendments cumulatively violates both NFMA and NEPA.

9

#### Fire

The DSEIS does not mention the School Fire. The impacts on potential or existing lynx habitat, whether within the project area, Asotin LAU, or an adjacent area, should be evaluated.

10

#### Summary

The DSEIS is inadequate as to its analysis of lynx habitat in this site-specific instance. It is also inadequate as it relates to a broader landscape of habitat connectivity for lynx across NE Oregon, northern Idaho, and Washington. Without valuing lynx habitat at the edge of its range, the

11

species is doomed to extinction in areas it previously inhabited.

Sincerely,

Mike Petersen  
the Lands Council  
423 West First Ave.  
Spokane, WA 99201

Doug Heiken  
Oregon Natural Resources Council  
PO Box 11648  
Eugene, OR 97440

Blue Mountains Biodiversity Project/League of Wilderness Defenders  
27803 Williams Lane  
Fossil, OR 97830

Gary Macfarlane  
Friends of the Clearwater  
PO Box 9241  
Moscow, ID 83843





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 10  
1200 Sixth Avenue  
Seattle, WA 98101

AUG 10 2005

Reply To  
Attn Of: ETPA-088

Ref: 98-041-AFS

Kevin D. Martin, Forest Supervisor  
Umatilla National Forest  
2517 S.W. Hailey Avenue  
Pendleton, Oregon 97801

Dear Mr. Martin:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Supplemental Environmental Impact Statement (DSEIS) for the **Upper Charley Subwatershed Ecosystem Restoration Projects** (CEQ No. 20050278). We are submitting comments in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act.

The purpose of the DSEIS is to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management of Canada Lynx for the site specific project, Upper Charley Subwatershed Ecosystem Restoration Project. The DSEIS identifies Alternative B as the Preferred Alternative. However, for the purpose of this DSEIS there is no difference among the alternatives since all of the action alternatives incorporate the same conservation recommendations for Canada Lynx.

EPA has rated this project LO (Lack of Objection). We support conservation measures for management of the Canada Lynx in the area and we appreciate the inclusion of Appendix C, which discusses the Lynx management direction. This rating and a summary of our comments will be published in the *Federal Register*. A copy of the rating system used in conducting our review is enclosed for your reference.

If you have questions or would like to discuss these comments, please contact Lynne McWhorter at (206) 553-0205 or me at (206) 553-1601. Thank you for the opportunity to provide these comments.

Sincerely,

Christine B. Reichgott, Manager  
NEPA Review Unit

Enclosure





# **UPPER CHARLEY SUBWATERSHED ECOSYSTEM RESTORATION PROJECTS**

## **FOREST SERVICE RESPONSE TO COMMENTS**





# FOREST SERVICE RESPONSE TO COMMENTS

## OREGON NATURAL RESOURCES COUNCIL (ONRC) and HELLS CANYON PRESERVATION COUNCIL

Comments	Our Response
<p><b><u>Comment 1(a):</u></b>  <i>"ONRC objects to the project level adoption of the LCAS because the lynx policy has never been subjected to programmatic NEPA analysis."</i></p>	<p>Amending the Forest plan programmatically (forest-wide) was considered but not analyzed in detail because the Umatilla Forest Plan is currently being revised and expected to be approved by the end of 2007. New information about lynx and any resulting changes in management direction to conserve Canada lynx and its habitat will be considered and blended within the context of the Forest Plan revision process. There is no need to duplicate the effort of the revision process in this site-specific analysis</p>
<p><b><u>Comment 1(b):</u></b>  <i>"Alternative means of conserving lynx have not been considered. The environmental consequences of the LCAS and alternatives have not been considered and compared."</i></p>	<p>Alternative means of conserving lynx were considered (DSEIS, Chapter II, Alternative I) but not analyzed in detail because recommendations from the Lynx Steering Committee represents the most creditable and applicable synthesis of science, including various viewpoints concerning the ecology, management and conservation of lynx and lynx habitat in the contiguous United States. In addition, as stated in Chapter II, Alternative H, various management strategies to conserve Canada lynx will be considered and blended within the context of the Forest Plan revision process. There is no need to duplicate the effort of the revision process in this site-specific analysis.</p>
<p><b><u>Comment 2:</u></b>  <i>"We also cannot see from the SEIS where the FS accurately disclosed the current condition of the lynx habitat. Suitable lynx habitat requires certain conditions be met and the EIS just asserts their presence without documenting the field surveys, which would be required to confirm assumptions."</i></p>	<p>The affected environment of Lynx habitat was adequately disclosed in the DSEIS, Chapter III. Additional information regarding lynx and their habitat, including field survey information, can be found in the project record.</p>

**ONRC requested we also review their September 20, 2004 scoping comments**  
**Our response to their scoping comments are listed below:**

<p><b><u>Comment 3:</u></b>  <i>"The agency should consider a wide range of alternatives and not rely completely on the conservation measures in the LCAS to protect lynx."</i></p>	<p>See response to Comment 1(b).</p>
<p><b><u>Comment 4:</u></b>  <i>"Two specific recommendations for ensuring appropriate management for lynx conservation are: 1) manage for lynx viability (i.e. recovery of a healthy population) not just survival; and 2) consider a wide range of management alternatives including managing all high elevation "snow zone" forests that support a prey base of lynx habitat. 3) do not look at the Upper Charley project area or the Umatilla National Forest in isolation. Consider the cumulative effects of this plan amendment in terms of the whole lynx range in this region."</i></p>	<p>1) Standards and guidelines (DSEIS, Appendix C) address the risk to lynx productivity, movement, and mortality, in order to conserve lynx, and to reduce or eliminate adverse effects from management activities (Ruediger et al. 2000) on Umatilla National Forest lands. Implementation of the standards and guidelines is expected to support the management of lynx and their habitat and lead to the conservation of the species (Ruediger et al. 2000).</p> <p>2) See response to Comment 1(b).</p> <p>3) Cumulative effects to lynx and their habitat are disclosed in the DSEIS, Chapter IV, pages 2-9. The cumulative effects disclosed for Canada lynx are consistent with the Forest Plan, as amended (DSEIS, Chapter IV, pages 4-6, Appendix C).</p>
<p><b><u>Comment 5:</u></b>  <i>"This proposed plan amendment must also consider and disclose the effects of all forest management activities in terms of its effects on (1) lynx movement and travel corridors, (2) lynx denning and down wood, and (3) lynx foraging, including the adverse effects of various forest management activities on populations of small mammals and other potential lynx prey species".</i></p>	<p>Direct, indirect, and cumulative effects to lynx movement, travel corridors, denning, down wood, and foraging (prey species) are disclosed in the DSEIS, Chapter IV pages 3-8. The cumulative effects disclosed for Canada lynx are consistent with the Forest Plan, as amended (DSEIS, Appendix C).</p>
<p><b><u>Comment 6:</u></b>  <i>"The plan amendment and SEIS must consider any adverse affects on the quality of the habitat for denning, foraging, dispersal, and prey base."</i></p>	<p>See response to Comment 5.</p>

<p><b><u>Comment 7:</u></b>  <i>"The Forest Service must not use the narrow view of lynx habitat described in the LCAS as represented only by large areas of subalpine fir."</i></p>	<p>Lynx habitat was mapped using criteria specific to the Upper Charley project area (Appendix C, page 1, Standard 1.1.1). Vegetation included those types necessary to support lynx reproduction and survival. Primary vegetation appropriate for this analysis was subalpine fir habitat types, where lodgepole pine is a major seral species, generally between 4,100-6,600 feet in elevation. Secondary vegetation included cool, moist grand fir and cool, moist Douglas-fir habitat types (DSEIS, Chapter III, page2-3).</p>
<p><b><u>Comment 8:</u></b>  <i>"The agency has an obligation to respond to credible opposing views."</i></p>	<p>See response to Comment 1(b). In addition, various viewpoints concerning lynx habitat and distribution were considered by the authors of the often referenced Ecology and Conservation of Lynx in the United States (Ruggiero et al. 2000) and the Canada Lynx Conservation Assessment and Strategy (LCAS) [Ruediger et al. 2000]. These publications along with subsequent updates and recommendations from the Lynx Steering Committee represents the most creditable and applicable synthesis of science, including various viewpoints concerning the ecology, management and conservation of lynx and lynx habitat in the contiguous United States (DSEIS, Chapter II, page 1, Chapter III, page 3).</p>
<p><b><u>Comment 9</u></b>  <i>"Lynx habitat maps that the Forest Service has developed inappropriately exclude areas that have historically been used by lynx and are likely to be used by lynx today and/or in the future. The Forest Service has not offered a reasonable justification for excluding large areas of suitable habitat from the lynx maps and for refusing to formally consult on projects in these areas."</i></p>	<p>See response to Comment 7.</p>
<p align="center"><b><u>ONRC requested we also review their June 22, 2002 appeal comments</u></b>  <b><u>Our response to their appeal comments are listed below:</u></b></p>	
<p><b><u>Comment 10:</u></b>  <i>"The Upper Charley Project will adversely affect the functioning of the regional connectivity corridor for migration, foraging, and denning by converting at least 390 acres of suitable lynx habitat into unsuitable habitat by reducing prey availability, and by reducing present and future denning habitat".</i></p>	<p>See response to Comment 5.</p>



<p><b><u>Comment 11:</u></b>  <i>"The Upper Charley EIS does not adequately address the impacts of, or alternatives to, the proposed logging activities. For instance, the EIS relies on modified lynx mapping criteria that exclude the impact of certain activities in certain areas from scrutiny as to their impacts on lynx and lynx habitat. The EIS also relies on the Lynx Conservation Assessment and Strategy (LCAS) and certain lynx-related "Project Design Criteria" that have never been subject to NEPA analysis."</i></p>	<p>See response to Comments 5 and 7 regarding impacts to lynx and lynx habitat and lynx habitat mapping.</p> <p>This draft environmental impact statement supplements Upper Charley Subwatershed Ecosystem Restoration Projects final environmental impact statement (FEIS) released May 2002. With this document the Forest Service is proposing to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects (DSEIS, Chapter I, page 1).</p>
<p><b><u>Comment 12:</u></b>  <i>"Consultation with the FWS on the impacts of the Upper Charley Project on lynx has also been rendered inadequate by the NEPA violation listed above."</i></p>	<p>Consultation and disclosure of impacts to Canada lynx and lynx habitat are consistent with the forest plan, as amended (DSEIS, Chapter IV, pages 9 and 10; Appendix C; and project record).</p>
<p><b><u>Comment 13:</u></b>  <i>"The lynx situation is very analogous to the spotted owl situation a decade ago. The Forest Service is coming up with species management plans without going through NEPA."</i></p>	<p>See response to Comment 11.</p>
<p><b><u>Comment 14:</u></b>  <i>"The Forest Service has not rigorously applied the LCAS in this project. The Forest Service finds that 9,866 acres of the Asotin LAU are suitable denning habitat, but the Forest Service has not actually site-specifically analyzed the habitat to make sure that it meets all the required characteristics for suitable denning habitat such as down wood."</i></p>	<p>The Forest Supervisor proposes to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects (DSEIS, Chapter I, page 2). Appendix C of this DSEIS provides a detailed listing of objectives, standards, and guidelines for this amendment. See response to Comment 7 regarding lynx habitat mapping.</p>

<p><b><u>Comment 15:</u></b>  <i>"Upper Charley ROD Appendix C, page C-2 says there are 986 acres of denning habitat, but page C-3 says the latest mapping work shows that there isn't any denning habitat. Which is correct?"</i></p>	<p>Denning habitat is present in the Asotin LAU but is not present in the Upper Charley analysis area (DSEIS, Chapter III, pages 3-4).</p>
<p><b><u>Comment 16:</u></b>  <i>"Upper Charley ROD Appendix C repeatedly says that the project is "aimed at achieving an appropriate HRV" but the LCAS requires management within a certain percentage of midpoint HRV. Midpoint HRV and appropriate HRV are never reconciled in the analysis. NEPA requires disclosure of information necessary to determine compliance with legal requirements such as the Endangered Species Act, Clean Water Act, etc..."</i></p>	<p>A broad-scale assessment of landscape pattern was not conducted for Upper Charley project. The responsible official chose the option of limiting unsuitable habitat to no more than 30 percent within a LAU (DSEIS, Appendix C, standard 1.1.1 (5)). Effects disclosed for Canada lynx are consistent with the Forest Plan, as amended (DSEIS, Chapter IV, pages 2-8).</p>
<p><b><u>Comment 17:</u></b>  <i>"The Upper Charley EIS also dismisses without proper analysis the possibility that livestock grazing may adversely impact lynx habitat suitability."</i></p>	<p>Livestock grazing is a cumulative action. The cumulative effect of livestock grazing relevant to the Upper Charley analysis area are disclosed in the DSEIS, Chapter IV, page 5.</p>
<p><b><u>Comment 18(a):</u></b>  <i>"The Upper Charley project intends to use shelterwood group selection harvest (i.e. small clearcuts) to increase habitat for lynx prey species such as snowshoe hare. The FEIS failed to consider the alternative of using prescribed natural fire to accomplish the same thing, if necessary."</i></p>	<p>A non-commercial harvest (mechanical and prescribed fire) alternative (D) was considered and analyzed in detail (FEIS, Chapter II; DSEIS, Chapter IV, pages 6-8).</p> <p>Currently there is no approved plan for implementation of prescribed natural fire use for resource benefit within Upper Charley analysis area. Development of such a plan is outside the scope of this EIS.</p>

**Comment 18(b):**

*"The Forest Service also failed to evaluate the habitat value of existing stands for prey species other than snowshoe hare. There is a trade-off between regen harvest to gain a temporary burst of snowshoe hare habitat in 20-25 years vs. the short, mid, and long-term value of habitat for alternate lynx prey species if the no action alternative were selected. This trade-off was not evaluated in the Upper Charley NEPA analysis."*

See response to Comment 5.

**ONRC requested we also review their original scoping comments on the DEIS dated June 12, 2000**

**Initial Scoping Comments**

Our responses to these comments are referenced in our Forest Service Response to Comments that was circulated with the FEIS and ROD.

**FRIENDS OF THE CLEARWATER**

(Gary Macfarlane)

The Lands Council (Mike Peterson)

Oregon Natural Resources Council (Doug Heiken)

Blue Mountain Biodiveristy Project/League of Wilderness Defenders

**Comment 1:**

*"Please incorporate, by reference, all the past comments on this project from these organizations. This is important as the DSEIS only deals with the issue of the forest plan amendment for lynx. As such, these comments are mainly directed at the amendment issue. Our previous comments combined with these comments are to be viewed together in context of the whole proposal."*

Friends of the Clearwater and The Lands Council did not make comments to the DEIS for the Upper Charley Subwatershed Ecosystem Restoration Projects (FEIS, ROD). Our responses to comments from Umatilla Forest Watch, Oregon Natural Resources Council, and Blue Mountain Biodiversity Project/League of Wilderness Defenders are referenced in our Response to Comments that was circulated with the FEIS and ROD.



<p><b><u>Comment 2(a):</u></b>  <i>"The agency should consider a wide range of alternatives and not rely completely on the conservation measures in the LCAS to protect lynx."</i></p>	<p>See our response to ONRC, Comment 1(b).</p>
<p><b><u>Comment 2(b):</u></b>  <i>"Project-specific design and analysis is the best way to ensure that management is appropriate to the Upper Charley projects, and should be considered in the Supplemental EIS in addition to the more general measures that will be included in the Forest Plan Amendment."</i></p>	<p>See our response to ONRC, Comment 4.</p>
<p><b><u>Comment 3:</u></b>  <i>"The DSEIS continues the problems in the FEIS and ROD by adopting measures which use modified lynx mapping criteria that exclude the impact of certain activities in certain areas from scrutiny as to their impacts on lynx and lynx habitat all under the rubric of these areas are not that important for lynx".</i></p>	<p>See our response to ONRC, Comments 5 and 7 regarding impacts to lynx and lynx habitat and lynx habitat mapping.</p>
<p><b><u>Comment 4:</u></b>  <i>"This DSEIS should have evaluated the validity of a couple of different assumptions:</i></p> <ol style="list-style-type: none"> <li><i>1. Lynx are rare and /or extirpated in the Umatilla National Forest because of human factors (management activities, decline of connectivity with other habitat areas in Washington, Oregon, and Idaho, historical trapping, and others) and not because the Umatilla was not historically habitat for lynx (though probably in low numbers).</i></li> <li><i>2. Lynx are rare and/or extirpated in the Umatilla National Forest because the area never was occupied habitat and only was a</i></li> </ol>	<p>Historic occurrences of Canada lynx are disclosed (DSEIS, Chapter III, pages 2-4). Based on limited verified records of lynx, lack of reproductive records, low frequency of occurrences, and correlations with cyclic lynx populations in Canada, lynx are considered dispersers/transients and not reproducing residents in the Blue Mountains of SE Washington and NE Oregon including the Upper Charley analysis area (DSEIS, Chapter III, pages 2-4).</p>

<p><i>dispersal corridor during years with high lynx numbers further north.</i></p> <p><i>Instead of considering both of these assumptions as their relative merits, the agency adopted the second conclusion without evaluation."</i></p>	
<p><b><u>Comment 5(a):</u></b>  <i>"Other failures to adequately address issues raised during scoping include two suggestions that have been given short shrift. The first is managing the area for lynx viability (i.e. recovery of a healthy population) rather than mere survival. The second was to consider a range of management alternatives including managing all "snow zone" forests that support a prey base as lynx habitat, not just the areas that fall within certain forest habitat types."</i></p>	<p>See our response to ONRC Comment 4.</p>
<p><b><u>Comment 5(b):</u></b>  <i>"This failure is crucial as the DSEIS relies on the science underlying the LCAS without evaluating recommendations from the LCAS as to their adequacy in this site-specific instance on the Umatilla National Forest. This is crucial because the DSEIS leads one to believe the Umatilla has less suitable habitat for lynx than adjacent national forests."</i></p>	<p>See our response to ONRC Comment 7 regarding Lynx habitat mapping.</p>
<p><b><u>Comment 5(c):</u></b>  <i>"As such the standard protections in the LCAS may be inadequate in this area that is even more sensitive than habitat where studied lynx populations exists."</i></p>	<p>Recommendations from the Lynx Steering Committee represents the most creditable and applicable synthesis of science, including various viewpoints concerning the ecology, management and conservation of lynx and lynx habitat in the contiguous United States (DSEIS, Chapter II, page 1, Chapter III, page 3). Also see our response to ONRC, Comment 4 and 5 regarding impacts to lynx and lynx habitat.</p>
<p><b><u>Comment 6:</u></b>  <i>"The DSEIS also fails to answer questions about conflicting information in lynx habitat within the project area raised in scoping comments. Is there any denning habitat within the project area or not?"</i></p>	<p>See our response to ONRC Comment 15 regarding Canada lynx denning habitat.</p>

<p><b><u>Comment 7:</u></b>  <i>"The DSEIS is not clear whether livestock will be excluded from logged openings and/or burns and as to how this would be done."</i></p>	<p>Livestock in the Peola Cattle Allotment is not expected to be excluded because many years of utilization inspections of the allotment have failed to find any significant use of conifer trees. Shrub utilization has always been well below the 30 percent current annual growth utilization standard for riparian and 55 percent of current annual growth utilization for uplands and transitory areas (recent clearcuts, etc.) (2002 Record of Decision, Appendix C, page 4).</p>
<p><b><u>Comment 8:</u></b>  <i>"For the Forest Service to maintain that some threats to lynx may harm individual lynx, but do not threaten populations as it claims in many places in the DSEIS and for the Forest Service to consequently approve any actions that may harm individual lynx, the Forest Service must provide peer-reviewed scientific data that population-level impacts will not occur."</i></p>	<p>The determination of "may effect not likely to adversely affect" for Canada lynx is disclosed (DSEIS, Chapter IV, page 6, Table 4-16). The U.S. Fish and Wildlife Service concurred with this determination (DSEIS, Chapter IV, page 10).</p>
<p><b><u>Comment 9:</u></b>  <i>"The DSEIS is not clear whether this amendment is "significant" under NFMA. We ask this question because it appears the FS is engaging in a pattern of doing several site-specific amendments on the Umatilla in lynx habitat. The failure to consider those amendments cumulatively violates both NFMA and NEPA."</i></p>	<p>A finding of significance under 36 CFR 219 (1982) will accompany the record of decision for the FSEIS. Cumulative effects to lynx and their habitat are disclosed in the DSEIS Chapter IV, pages 5-6. The cumulative effects disclosed for Canada lynx are consistent with the Forest Plan, as amended (DSEIS, Chapter 4, pages 4-6, Appendix C).</p>
<p><b><u>Comment 10:</u></b>  <i>"The DSEIS does not mention the School Fire. The impacts on potential or existing lynx habitat, whether within the project area, Asotin LAU, or and adjacent area should be evaluated."</i></p>	<p>The DSEIS was circulated before the School Fire occurred. School Fire occurred in August 2005, and the DSEIS was circulated July 2005. The fire did not burn or change the condition of lynx habitat in Upper Charley analysis area. Therefore, effects to lynx habitat in the Upper Charley analysis area remain as described in the DSEIS. School Fire did change lynx habitat in the Asotin LAU. An evaluation of effects in the LAU show they are consistent with the amended Forest Plan. Please see errata sheets circulated with the Final Supplemental Impact Statement (FSEIS) and ROD for this information.</p>

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION 10**

**Comment 1:**

*"EPA has rated this project LO (Lack of Objection). We support conservation measures for management of the Canada Lynx in the area and we appreciate the inclusion of Appendix C, which discussed the Lynx management direction."*

No response necessary.

# **UPPER CHARLEY SUBWATERSHED ECOSYSTEM RESTORATION PROJECTS**

## **ERRATA**







# ERRATA

The Responsible Official, prior to signing the Record of Decision, reviewed the changes listed below. The changes were determined to not affect the conclusions presented in the draft supplemental environmental impact statement (DSEIS).

Chapter and Page	Description of Change
Chapter IV Page IV-5	<p><b>Insert the following after paragraph 2:</b></p> <p>In August 2005, the School wildfire burned approximately, 26,000 acres on Pomeroy Ranger District. The fire burned through the outside edge of the northwest portion of the Asotin LAU. The fire changed about 479 acres of forage habitat (1%) and 363 acres (1%) of denning habitat to an unsuitable condition. As a result of the School Fire lynx habitat changed to 55% foraging, 23% denning, and 22% unsuitable in the Asotin LAU. School Fire did not burn or change the condition of lynx habitat in Upper Charley analysis area. Therefore, effects to lynx habitat in Upper Charley analysis area remain as described previously.</p>
Chapter IV Pages IV-5 and IV-6	<p><b>Delete last paragraph on page IV-5. Insert the following paragraphs:</b></p> <p>Cumulative effects in the Asotin LAU resulted in the following habitat: 54% foraging habitat; 23% denning habitat; and 23% unsuitable habitat. Unsuitable habitat would be 7% below the Forest Plan standard that limits the amount of unsuitable habitat in a LAU to no more than 30%, and therefore is consistent with the Forest Plan as amended. Denning habitat would be 13% above the Forest Plan standard that requires a minimum of 10% denning habitat within a LAU, and therefore is consistent with the Forest Plan.</p> <p>Lynx habitat does not occur to the north and west of the Asotin LAU, because vegetation changes to a non-habitat type (dry forest, grassland, etc.). In the School Fire area of the LAU, habitat would be somewhat disconnected (unsuitable) for 15-20 years, until vegetation regenerates to provide cover for lynx movement through the area. Habitat to the south and east of School Fire remains connected to provide movement through the Asotin LAU. Habitat between the Asotin LAU and Wenaha LAU to the south remains connected and unaffected by the proposed action, allowing lynx movement between LAUs. Cumulatively, habitat connectivity would be consistent with the Forest Plan as amended, because connectivity would be maintained, allowing lynx movement through the analysis area, across the Asotin LAU, and between lynx analysis units.</p>

Chapter and Page	Description of Change
	<p>The 2% change in habitat since 2000 is currently within the Forest Plan standard that limits changes to habitat by management actions, to no more than 15%, to a unsuitable condition, for a 10 year period, within a LAU. Overall, cumulative effects are consistent with Forest Plan standards and guidelines as amended (Appendix C). Based on cumulative effects; lynx movement, productivity, and mortality would not be affected by proposed activities in alternatives B, C, and E. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).</p>
<p><b>Chapter IV</b> <b>Page IV-6</b></p>	<p><b>Under heading <u>Determination Of Effects for Alternatives B, C, and E</u> insert the following:</b></p> <p>As a result of School Fire in the Asotin LAU, there would be no change in determination of effects for Canada lynx. Alternatives B, C, and E in Upper Charley Subwatershed Ecosystem Projects EIS, would have a determination of <u>may effect, not likely to adversely affect</u> for Canada Lynx (Johnson 2001).</p>
<p><b>Chapter IV</b> <b>Page IV-8</b></p>	<p><b>Delete paragraph 3 and insert the following:</b></p> <p>Cumulative effects (including School Fire) in the Asotin LAU resulted in the following habitat: 55% foraging habitat; 23% denning habitat; and 22% unsuitable habitat. Unsuitable habitat would be 7% below the Forest Plan standard that limits the amount of unsuitable habitat in a LAU to no more than 30%, and therefore is consistent with the Forest Plan as amended. Denning habitat would be 13% above the Forest Plan standard that requires a minimum of 10% denning habitat within a LAU, and therefore consistent with the Forest Plan as amended. In School Fire area of Asotin LAU, habitat would be somewhat disconnected (unsuitable) for 15-20 years, until the vegetation regenerates to provide cover for lynx movement through the area. Habitat to the south and east of School Fire remains connected to provide movement through the Asotin LAU. Habitat between Asotin LAU and Wenaha LAU to the south remains connected and unaffected by the proposed action, allowing lynx movement between the LAUs. Cumulatively, habitat connectivity would be consistent with the Forest Plan as amended, because connectivity would be maintained, allowing lynx movement through the analysis area, across the Asotin LAU, and between lynx analysis units. The &lt;1% change in habitat since 2000 is currently within the Forest Plan standard that limits changes to habitat by management actions, to no more than 15%, to an unsuitable condition, for a 10 year period within a LAU. Overall, cumulative effects would be consistent with Forest Plan standards and guidelines</p>

Chapter and Page	Description of Change
	as amended (Appendix C). Based on cumulative effects, lynx movement, productivity, and mortality would not be affected by proposed activities in Alternative D. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).



# **UPPER CHARLEY SUBWATERSHED ECOSYSTEM RESTORATION PROJECTS**

## **DRAFT SUPPLEMENTAL EIS**







# Upper Charley Subwatershed Ecosystem Restoration Projects

## Draft Supplemental Environmental Impact Statement



USDA Forest Service  
Pacific Northwest Region

Umatilla National Forest  
Pomeroy Ranger District

July 2005

**Lead Agency:**

**USDA Forest Service**

**Responsible Official:**

**Kevin D. Martin, Forest Supervisor  
Umatilla National Forest  
2517 S.W. Hailey Avenue  
Pendleton, Oregon 97801**

**For Further Information  
Contact:**

**Monte Fujishin  
District Ranger  
Pomeroy Ranger District**

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Publication Number F14-POM-10-05



# **Upper Charley Subwatershed Ecosystem Restoration Projects**

## **Draft Supplemental Environmental Impact Statement Garfield County, Washington**

**Abstract:** Umatilla National Forest, Pomeroy Ranger District, is proposing to supplement the Final Environmental Impact Statement (FEIS) for Upper Charley Subwatershed Ecosystem Restoration Projects and amend the Umatilla National Forest Land and Resource Management Plan to incorporate management direction for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects. This draft supplement will be considered part of the FEIS, and should be viewed as a single document.

Reviewers should provide the Forest Service with their comments during the review period of the draft environmental impact statement. This will enable the Forest Service to analyze and respond to comments at one time and to use information acquired in preparation of the final environmental impact statement, thus avoiding undue delay in the decision making process. Reviewers have an obligation to structure their participation in the National Environmental Policy Act process so that it is meaningful and alerts the agency to the reviewers' position and contentions. *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U. S. 519,553 (1978). Environmental objections that could have been raised draft stage may be waived if not raised until after completion of the final environmental impact statement. *City of Angoon v. Hodel* (9<sup>th</sup> Circuit, 1986) and *Wisconsin Heritages, Inc. v. Harris*, 490 F.Supp. 1334, 1338 (E.D. Wis. 1980). Comments on the draft environmental impact statement should be specific and should address the adequacy of the statement and merits of the alternatives discussed (40 CFR 1503.3).

**Send Comments to:**

**Kevin D. Martin, Forest Supervisor  
Umatilla National Forest  
2517 S.W. Hailey Avenue  
Pendleton, Oregon 97801**

**Date Comments Must Be Received:**

**August 22, 2005**





# Upper Charley Draft Supplemental Environmental Impact Statement

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# Upper Charley Draft Supplemental Environmental Impact Statement Summary

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## INTRODUCTION

This draft environmental impact statement supplements the Upper Charley Subwatershed Ecosystem Restoration Projects final environmental impact statement (FEIS) released May 2002. With this document the Forest Service is proposing to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.

Availability of a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for Upper Charley Subwatershed Ecosystem Restoration Projects was listed in the Federal Register on May 10, 2002 (Vol. 678 No.91 Page 31801). The decision was appealed. On August 29, 2002 the decision was affirmed by the Appeal Deciding Officer and found consistent with applicable laws, regulations, policies and the Forest Plan.

On May 21, 2003 (amended September 22, 2003) Oregon Natural Resources Council Fund (ONRC) filed in the United States District Court of Oregon, Case No: 03-682-KI, a Complaint for Declaratory and Injunctive Relief against Linda Goodman, Regional Forester, Pacific Northwest Region; and United States Forest Service. ONRC claims "The Forest Service has thereby altered the standards and guidelines of the Umatilla and Ochoco Forest Plans with respect to lynx and lynx habitat without amending or revising the Plans, and without public notice, in violation of NFMA" (Complaint for Declaratory and Injunctive Relief, Item 87, Case No: 03-682-KI).

Within Upper Charley Subwatershed Ecosystem Restoration Projects DEIS and throughout the FEIS and ROD, the best science available relating to the management and conservation of Canada lynx was considered and documented (Johnson, 1999 and 2000). Analyses and determinations were based upon the conservation recommendations in the Canada Lynx Conservation Assessment and Strategy (Ruediger et. al., 2000). The United States Fish and Wildlife Service (USFWS) concurred with the determinations (Gobar, 2000) made while consulting on Canada lynx (February 20, 2001). Although there is no defect in the analyses and procedures cited above and although all relevant conservation recommendations to conserve Canada lynx were incorporated in the project design and implementation procedures of the Upper Charley project, an amendment to the Forest Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx was not documented.

On August 11, 2004, Forest Supervisor, Jeff Blackwood, decided to amend the Forest Plan and prepare a draft supplemental environmental impact statement. This supplemental statement will provide documentation of a forest plan amendment for Canada lynx in support of the May 2002 Upper Charley Subwatershed Ecosystem Restoration Projects FEIS. Therefore, the two environmental impact statement documents must be thought of and used together as if they are one statement.

The amendment and supplemental environmental impact statement process will follow procedures in 40 CFR 1500-1508 and Forest Service Handbook 1909.15 and 1909.12. This DSEIS will be made available for a 45-day comment period. After considering comments received, Umatilla Forest Supervisor will base his decisions on Upper Charley Subwatershed Ecosystem Restoration Projects FEIS as supplemented by Upper Charley Subwatershed Ecosystem Restoration Projects final supplemental EIS. The Umatilla Forest Supervisor will document his decision in a Record of Decision that will be subject to appeal following procedures described in 35 CFR 215.

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# Upper Charley Draft Supplemental Environmental Impact Statement Summary

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## LOCATION AND GEOGRAPHIC BOUNDARIES

No Change from FEIS.

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## PURPOSE AND NEED

Insert in FEIS page S-2 at the beginning of Purpose and Need section.

The Canada Lynx Conservation Assessment and Strategy (Ruediger et. al., 2000), as amended, includes a set of conservation recommendations that are based on the best currently available scientific information about lynx; risks to the species and/or individuals posed by management activities; habitat conditions; and measures that are likely needed to conserve the species. The strategy states in Chapter 7-1 *“These measures are provided to assist federal agencies in seeking opportunities to benefit lynx and help to avoid negative impacts through the thoughtful planning of activities. Plans that incorporate them are generally not expected to have adverse effects on lynx, and implementation of these measures across the range of the lynx is expected to lead to conservation of the species.”* There is a need to provide management direction for the conservation of Canada lynx during this project and fulfill our obligations under the Endangered Species Act.

The Forest Supervisor proposes to amend the Umatilla National Forest’s Land and Resource Management Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx and its habitat, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects. Appendix C of this DSEIS provides a detailed listing of the objectives, standards, and guidelines for this amendment.

---

## PUBLIC INVOLVEMENT

Insert in FEIS page S-2 at the end of the Public Involvement section.

A notice to initiate a Forest Plan amendment to incorporate management direction for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects, was published in a Notice of Intent to prepare an Environmental Impact Statement in the Federal Register on August 11, 2004. Comments were solicited in the Notice of Intent, and in scoping letters mailed to interested individuals and organizations (August 11 and 12, 2004).

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## KEY ISSUES

No change from FEIS.

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## OTHER ISSUES

Insert in FEIS page S-5 after bullet item entitled Non-Traditional Economic Factors.

**Forest Plan Amendment** - Amend Umatilla National Forest Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx to guide conservation of Canada lynx consistent with new science and Endangered Species Act. Specific management direction would be added to



# **Upper Charley Draft Supplemental Environmental Impact Statement Summary**

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fulfill our obligations under Endangered Species Act as applied to the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.

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## **ALTERNATIVES CONSIDERED IN DETAIL**

### **Alternative B – Proposed Action – Preferred Alternative**

Insert in FEIS page S-6 last paragraph under this heading.

The Forest Plan would be amended to incorporate management direction (objectives, standards, and guidelines) for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects. Appendix C of this DSEIS provides a detailed listing of the objectives, standards, and guidelines for this amendment.

---

### **Alternative C – Big Game Habitat**

Insert in FEIS page S-7 last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

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### **Alternative D – Restoration without Commercial Timber Harvest**

Insert in FEIS page S-7 last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

---

### **Alternative E – Management Activities in Class IV Riparian Habitat Conservation Areas (RHCAs)**

Insert in FEIS page S-8 last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

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## **Table S-1 COMPARISON OF ALTERNATIVES BY SPECIFIC FEATURES**

Same as FEIS pages S-9 and 10.

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## **Table S-2 COMPARISON OF ALTERNATIVES BY KEY ISSUES AND INDICATORS**

Same as FEIS page S-11.



# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter I – Purpose and Need

---

### INTRODUCTION and BACKGROUND

Insert in FEIS, Chapter I page 1.

This draft environmental impact statement supplements the Upper Charley Subwatershed Ecosystem Restoration Projects final environmental impact statement (FEIS) released May 2002. With this document the Forest Service is proposing to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management for Canada lynx, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.

Availability of a Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for Upper Charley Subwatershed Ecosystem Restoration Projects was listed in the Federal Register on May 10, 2002 (Vol. 678 No.91 Page 31801). The decision was appealed. On August 29, 2002 the decision was affirmed by the Appeal Deciding Officer and found consistent with applicable laws, regulations, policies and the Forest Plan.

On May 21, 2003 (amended September 22, 2003) Oregon Natural Resources Council Fund (ONRC) filed in the United States District Court of Oregon, Case No: 03-682-KI, a Complaint for Declaratory and Injunctive Relief against Linda Goodman, Regional Forester, Pacific Northwest Region; and United States Forest Service. ONRC claims "The Forest Service has thereby altered the standards and guidelines of the Umatilla and Ochoco Forest Plans with respect to lynx and lynx habitat without amending or revising the Plans, and without public notice, in violation of NFMA" (Complaint for Declaratory and Injunctive Relief, Item 87, Case No: 03-682-KI).

Within Upper Charley Subwatershed Ecosystem Restoration Projects DEIS and throughout the FEIS and ROD the best science available relating to the management and conservation of Canada lynx was considered and documented (Johnson, 1999 and 2000). Analyses and determinations were based upon the conservation recommendations in the Canada Lynx Conservation Assessment and Strategy (Ruediger et. al., 2000). The United States Fish and Wildlife Service (USFES) concurred with the determinations (Gobar, 2000) made while consulting on Canada lynx, February 20, 2001). Although there is no defect in the analyses and procedures cited above and although all relevant conservation recommendations to conserve Canada lynx and protect lynx habitat were incorporated in the project design and implementation procedures of the Upper Charley project, an amendment to the Forest Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx was not documented.

On August 11, 2004, Forest Supervisor, Jeff Blackwood, decided to amend the Forest Plan and prepare a draft supplemental environmental impact statement. This supplemental statement will provide documentation of a forest plan amendment for Canada lynx in support of the May 2002 Upper Charley Subwatershed Ecosystem Restoration Projects FEIS. Therefore, the two environmental impact statement documents must be thought of and used together as if they are one statement.

The amendment and supplemental environmental impact statement process will follow procedures in 40 CFR 1500-1508 and Forest Service Handbook 1909.15 and 1909.12. This DSEIS will be made available for a 45-day comment period. After considering comments received, Umatilla Forest Supervisor will base his decisions on Upper Charley Subwatershed Ecosystem Restoration Projects FEIS as supplemented by Upper Charley Subwatershed Ecosystem Restoration Projects final supplemental EIS. The Umatilla Forest Supervisor will document his decision in a Record of Decision that will be subject to appeal following procedures described in 35 CFR 215.

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter I – Purpose and Need

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Paper copies of Upper Charley Subwatershed Ecosystem Projects FEIS, and this draft supplemental impact statement (DSEIS) are available upon request by contacting Terri Jeffreys at Pomeroy Ranger District (509) 843-4626. The DSEIS can be viewed or downloaded from the following Internet site <http://www.fs.fed.us/r6/uma/projects/readroom/>.

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### **LOCATION AND OVERVIEW OF THE AREA**

No change from FEIS.

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#### **Map I -1 Vicinity Map**

No change from FEIS.

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### **PURPOSE OF AND NEED FOR ACTION - PROPOSED ACTION**

Insert in FEIS Chapter I page 7 following statement number 5.

#### **Forest Plan Amendment**

The Canada Lynx Conservation Assessment and Strategy (Ruediger et. al., 2000), as amended includes a set of conservation recommendations that are based on the best currently available scientific information about lynx; risks to the species and/or individuals posed by management activities; habitat conditions; and measures that are likely needed to conserve the species. The strategy states in Chapter 7-1 "*These measures are provided to assist federal agencies in seeking opportunities to benefit lynx and help to avoid negative impacts through the thoughtful planning of activities. Plans that incorporate them are generally not expected to have adverse effects on lynx, and implementation of these measures across the range of the lynx is expected to lead to conservation of the species.*" There is a need to provide management direction for the conservation of Canada lynx and its habitat during this project and fulfill our obligations under the Endangered Species Act.

The Forest Supervisor proposes to amend the Umatilla National Forest's Land and Resource Management Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx and its habitat, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects. Appendix C of this DSEIS provides a detailed listing of the objectives, standards, and guidelines for this amendment.

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#### **Table I-1 Summary of Needs and Proposed Action Activities**

No change from FEIS.

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### **TIME FRAMES**

No change from FEIS.

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### **CONNECTED AND CUMULATIVE ACTIONS**

No change from FEIS.

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter I – Purpose and Need

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### TIERING AND INCORPORATING BY REFERENCE

Insert in FEIS Chapter I page 10, following the last bulleted item.

- ◆ Ruggiero et al., *Ecology and Conservation of Lynx in the United States* (Lynx Science Report); and Ruediger, et al., 2000, *Canada Lynx Conservation Assessment and Strategy* (LCAS) as amended. Direction for use of the Lynx. Science Report and LCAS to promote lynx conservation and its habitat on federal lands administered by the USDA Forest Service and USDI Fish and Wildlife Service is found in the February 2000 and May 2005 Canada Lynx Conservation Agreements.
- ◆ Stinson, D. W. 2001. *Washington State Recovery Plan for the Lynx*. Washington Department of Fish and Wildlife, Olympia, Washington. This document summarizes the historic and current distribution and abundance of the lynx in Washington, described factors affecting the population and its habitat, and prescribes strategies to recover the species in Washington.
- ◆ *Lynx Habitat Management Plan for DNR Managed Lands*, Washington State Department of Natural Resources, November 14, 1996. This habitat management plan adopts a hierarchical approach to accommodate the multi-scaled habitat needs of lynx.
- ◆ *Agreement Letter* from Washington Fish and Wildlife Service regarding Washington Department of Natural Resource's Proposal to Modify its Lynx Management Plan to Avoid the Incidental Take of Canada Lynx, dated April 26, 2002.

This DSEIS hereby incorporates by reference the project record (hereafter, referred to as the analysis file) [40 CFR 1502.21]. The analysis file contains resource specialist reports and other technical documentation used to support the analysis and conclusions in this EIS. Specialists reports include the following: Soil, Water Quality, Fish, Terrestrial Wildlife, MIS Indicator Species, Vegetation, Fire and Fuels, Air Quality, Roads Analysis, Archeology, TE&S aquatic, terrestrial, and plant species, Economics, and Noxious Weeds. Other sources of information, documents, published studies, and books referred to in the analysis file and this document are also included.

Relying on specialists reports and analysis file helps implement the CEQ Regulations' provision that agencies should reduce NEPA paperwork (40 CFR 1500.4), that environmental documents shall be analytic rather than encyclopedic, and that EISs/EAs shall be kept concise and no longer than absolutely necessary (40 CFR 1502.2). The objective is to furnish enough site-specific information to demonstrate a reasoned consideration of the environmental impacts of the alternatives and how these impacts can be mitigated, without repeating detailed analysis and background information available elsewhere. The analysis file is available for review at the Pomeroy Ranger District, Pomeroy, Washington.

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#### Treaty Rights:

No change from FEIS.

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### DECISIONS TO BE MADE

Chapter I page 11 - Remove first paragraph under this heading and insert following paragraph.



# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter I – Purpose and Need

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The Umatilla National Forest Supervisor is the Responsible Official for this proposed action and will make the following decisions associated with this Environmental Impact Statement:

Insert in FEIS Chapter I page 12, after last bulleted item.

- Whether or not the Forest Supervisor should amend the Umatilla Land and Resource Management Plan (Forest Plan) and incorporate management direction (objectives, standards, and guidelines) for Canada lynx and its habitat, only for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.
- 

### **SCOPE OF THE PROPOSED ACTION**

No change from FEIS.

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### **SCOPING**

Insert in FEIS Chapter I page 12, after first paragraph under this heading.

The Notice of Intent (NOI) to supplement the Upper Charley Subwatershed Ecosystem Restoration Projects EIS was published in the Federal Register on August 11, 2004 (Federal Register vol. 69, no. 154, pages 48838-48839). The NOI asked for public comment 45 days after publication of the NOI on proposal to amend the Umatilla Forest Plan and incorporate management direction (objectives, standards, and guidelines) for Canada lynx.

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### **KEY ISSUES**

No change from FEIS.

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### **OTHER ISSUES**

Insert in FEIS Chapter I page 16, after bullet item entitled Non-Traditional Economic Factors.

- ♦ **Forest Plan Amendment** - Amend Umatilla National Forest Plan to incorporate management direction (objectives, standards, and guidelines) for Canada lynx, and to guide conservation of Canada lynx and its habitat consistent with new science and Endangered Species Act. Specific management direction would be added to fulfill our obligations under Endangered Species Act as applied to the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects.
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### **ORGANIZATION OF THE DEIS**

No change from FEIS.

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter II – Alternatives

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### **INTRODUCTION**

No change from FEIS.

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### **ALTERNATIVE DEVELOPMENT PROCESS**

No change from FEIS.

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### **ALTERNATIVES CONSIDERED AND NOT ANALYZED IN DETAIL**

Insert in FEIS Chapter II page 3 after Alternative G and before Alternatives Considered in Detail.

#### ***Alternative H - Incorporate all LCAS Chapter 7 recommendations Forest-wide***

In response to public input, the Forest Service considered an alternative that incorporates, forest-wide, all of the recommendations listed in Chapter 7 of the Canada lynx Conservation Assessment and Strategy (LCAS) 2000, as amended, into the forest plan to conserve Canada lynx and its habitat. This alternative would have amended the plan forest-wide and remain in effect until the Forest Plan was revised.

This alternative may have addressed the project-specific purpose and need to provide management direction specific to management of Canada lynx habitat, however, doing so would have required additional analysis of programmatic effects that are outside the scope of this decision. In addition, the Umatilla Forest Plan is currently being revised and expected to be approved by the end of 2007. New information about lynx and any resulting changes in management direction to conserve Canada lynx and its habitat will be considered and blended within the context of the Forest Plan revision process. There is no need to duplicate the effort of the revision process in this site-specific analysis.

For these reasons this alternative was considered but not analyzed in detail.

#### ***Alternative I - Do not rely entirely on the LCAS conservation measures to protect lynx***

In response to public comment the Forest Service considered incorporating management direction for Canada lynx and its habitat that differs from the conservation recommendations located in Chapter 7 of the LCAS. The LCAS, as amended, includes a set of conservation recommendations that are based on the best currently available scientific information about lynx; risks to the species and/or individuals posed by management activities; habitat conditions; and measures that are likely needed to conserve the species. This assessment and strategy were authored by specialists representing four federal agencies including the USDI Fish and Wildlife Service. The LCAS has been reviewed and modified by the science team in response to new information since it was published in 2000. The LCAS states in Chapter 7-1 “*These measures are provided to assist federal agencies in seeking opportunities to benefit lynx and help to avoid negative impacts through the thoughtful planning of activities. Plans that incorporate them are generally not expected to have adverse effects on lynx, and implementation of these measures across the range of the lynx is expected to lead to conservation of the species.*”

Various viewpoints concerning lynx habitat and distribution were considered by the authors of the often referenced Ecology and Conservation of Lynx in the United States (Ruggiero et al. 2000) and the Canada Lynx Conservation Assessment and Strategy (LCAS) [Ruediger et al. 2000]. These publications along with subsequent updates and recommendations from the Lynx Steering Committee

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter II – Alternatives

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represents the most creditable and applicable synthesis of science, including various viewpoints concerning the ecology, management, and conservation of lynx and lynx habitat in the contiguous United States. In addition, as stated in Alternative H above, various management strategies to conserve Canada lynx will be considered and blended within the context of the Forest Plan revision process. There is no need to duplicate the effort of the revision process in this site-specific analysis.

For these reasons alternative strategies to the LCAS were considered but not analyzed in detail.

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### **ALTERNATIVES CONSIDERED IN DETAIL**

#### **Alternative A – No Action (Map II-1)**

No change from FEIS.

Map II-1 - no change from FEIS.

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#### **Alternative B – Proposed Action - Preferred Alternative (Maps II-2 & II-3)**

##### **Purpose and Design:**

Insert in FEIS Chapter II page 5, last paragraph under this heading.

The Forest Plan would be amended to incorporate management direction (objectives, standards, and guidelines) taken from conservation measures located in Chapter 7 of the LCAS, as amended. Objectives would be incorporated into the Forest Plan on page 4-29 below Table 4-10 and above the paragraph starting with “Biological evaluation...” Standards and guidelines would be incorporated into the Forest Plan on page 4-91, bottom of the page following Peregrine Falcon Habitat, with a heading for Canada lynx. This amendment would apply only for the duration of, and to those actions proposed in lynx habitat for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects. (See Appendix C - Lynx Management Direction, for a listing of objectives, standards, and guidelines.)

Maps II-2 and II-3 - no change from FEIS.

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#### **Alternative C - Big Game Habitat (Maps II-4 & II-5)**

##### **Purpose and Design:**

Insert in FEIS Chapter II page 14, last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

Maps II-4 and II-5 – no change from FEIS.

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter II – Alternatives

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### **Alternative D – Restoration without Commercial Timber Harvest (Maps II-6 & II-7)**

#### **Purpose and Design:**

Insert in FEIS Chapter II page 20, last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

Maps II-6 and II-7 – no change from FEIS.

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### **Alternative E – Management Activities included in Class IV RHCAs (Maps II-8 and II-9)**

#### **Purpose and Design:**

Insert in FEIS Chapter II page 25, last paragraph under this heading.

Forest Plan would be amended as described in Alternative B.

Maps II-8 and II-9 – no change from FEIS.

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## **MITIGATION, MANAGEMENT REQUIREMENTS, AND DESIGN FEATURES**

### **Table II-1 Mitigation, Management Requirements, and Design Features**

No change from FEIS.

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## **MONITORING**

No change from FEIS.

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## **COMPARISON OF ALTERNATIVES BY ISSUE**

No change from FEIS.

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### **Table II-2 Comparison of Alternatives by Specific Features**

No change from FEIS.

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### **Table II-3 Comparison of Alternatives by Key Issues and Indicators**

No change from FEIS.

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter III – Affected Environment

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### **INTRODUCTION**

No change from FEIS.

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### **MANAGEMENT AREA DIRECTION**

No change from FEIS.

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## **PHYSICAL FACTORS**

### **LOCATION**

No change from FEIS.

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### **GEOLOGY**

No change from FEIS.

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### **CLIMATE**

No change from FEIS.

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There would be no change to affected environment as described in the FEIS for the following resources:

### **SOIL**

### **WATER QUALITY/FISH HABITAT**

### **FIRE and FUELS and AIR QUALITY**

### **RANGE**

### **TRANSPORTATION – ROADS**

---

## **BIOLOGICAL FACTORS**

There would be no change to affected environment as described in the FEIS for the following resources:

### **ECOSYSTEM SUSTAINABILITY - VEGETATION**

### **NOXIOUS WEEDS**

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter III – Affected Environment

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### **BIG GAME HABITAT**

### **MANAGEMENT INDICATOR SPECIES and NEOTROPICAL MIGRANT BIRDS**

### **THREATENED, ENDANGERED, OR SENSITIVE AQUATIC SPECIES**

### **THREATENED, ENDANGERED, OR SENSITIVE TERRESTRIAL SPECIES**

*Remove text in last paragraph (Based on available ...) in Chapter III starting on page 34 and continued on page 35, and insert the following text and table.*

Historic occurrence of lynx in the Blue Mountains (SE Washington and NE Oregon) is suspect. From the late 1800's to 1980 there are only five specimen records from the Blue Mountains. One of which occurred (1931) near Mt. Misery in Garfield County, Washington and the remainder occurred in anomalous habitat (grasslands/shrubs). It has been well noted (Verts and Carraway 1998, McKelvey et al. 2000 and Stinson 2001) that the dates of those occurrences correspond with peaks in the lynx population in western Canada; that could have produced a pulse of dispersing individuals when prey was scarce. More recently (<20 years) incidental observations of lynx have occurred sporadically in the Blue Mountains. Most of the observations on the Forest have occurred between Weston and Elgin along State Route 204, particularly in the vicinity of Tollgate, Oregon. However, during snow-tracking surveys conducted for forest carnivores (wolverine, marten, lynx, etc.) from 1992-1995, lynx tracks were not observed on a route south and west of the analysis area or on other routes across the Forest. During the summer of 1999, hair-snag surveys were conducted across the Forest (including Pomeroy and Walla Walla Districts) in coordination with the Fish and Wildlife Service. Twelve (12) hair-snag stations were placed both in and adjacent to the Upper Charley analysis area. As a result of this effort, 22 hair samples were sent to the University of Montana for DNA analysis. Thirteen (13) of the samples were from black bear, 5 from coyotes, 2 from bobcat, and 2 "other" (not Felid spp. (report from the University of Montana dated 9/22/00). None of the stations in the vicinity of the Upper Charley analysis area or across the Forest detected lynx. In addition, the hair-snag method identified in the National Lynx Detection Protocol (McKelvey, et al. 1999) was conducted on the North Fork John Day Ranger District from 1999 to 2001. The DNA analysis of hair collected from hair-snag stations showed that none of the collected hairs were from lynx. The "National Protocol" was also conducted during the same time period on Forests (Wallowa-Whitman and Malheur NF) adjacent to the Umatilla National Forest, and none of the stations on adjacent Forests detected lynx.

Based on limited verified records of lynx, lack of reproductive records, low frequency of occurrences, and correlations with cyclic lynx populations in Canada, lynx are considered dispersers/transients and not reproducing residents in the Blue Mountains of SE Washington and NE Oregon (Verts and Carraway 1998, McKelvey et al. 2000, Stinson 2001, and USFW 2003); including the Upper Charley analysis area.

The distribution of Canada lynx is predominately tied to boreal forest types of Canada (Koehler and Aubry 1994). Peninsula extensions of the boreal forest occur in the western mountains of the United States. Component of boreal forest include subalpine fir, Engelmann spruce, and lodgepole pine as major seral species (Agee 2000 and Aubry et al. 2000). For the Interior Columbia Basin Ecosystem Management Project (ICBEMP), Wisdom et al. (2000) generally describes primary habitat for lynx as subalpine fir and montane forests that have cold or moist forest types. Source habitat included subalpine fir, Engelmann spruce, interior Douglas-fir, western larch, lodgepole pine, and grand fir forest types (Wisdom et al. 2000). However, in western United States (Montana, Washington, and Wyoming) where lynx are known to occur in study areas, subalpine fir, Engelmann spruce and lodgepole pine occupy a

## Upper Charley Draft Supplemental Environmental Impact Statement

### Chapter III – Affected Environment

large portion of study areas (Aubry 2000 and Stinson 2001). Where drier vegetation types such as ponderosa pine or Douglas-fir occurred in these study areas, they were generally avoided by lynx (Squires and Laurion 2000, Ruediger et al. 2000, and USDA Forest Service, Memo 2001). Therefore, in this analysis primary vegetation that contributes to lynx habitat includes subalpine fir habitat types, where lodgepole pine is a major seral species, generally between 4,100-6,600 feet in elevation (Verts and Carraway 1998, Ruggiero et al. 2000, Ruediger et al. 2000, Gobar 2003, and NatureServe 2005). Secondary vegetation, when interspersed or adjacent with subalpine forest may also contribute to lynx habitat, this includes (cool) moist grand fir and moist Douglas-fir habitat types (Ruggiero et al 2000, Squires and Laurion 2000, Ruediger et al. 2000, USDA Forest Service, Memo 2001, and Gobar 2003).

Snowshoe hare is the primary prey species for lynx. Forest types that support snowshoe hare include lodgepole pine, subalpine fir, and Engelmann spruce. Lodgepole pine is an important browse species for hares in the western U.S. Within lynx habitat, lynx forage in early to mid-successional stages, where snowshoe hare generally occur in high numbers (Koehler and Aubry 1994, McKelvey, Aubry, and Ortega 2000, Ruediger et al. 2000, and Stinson 2001). Lynx habitat in late successional stages with large woody debris are generally used for denning, rearing young and hunting alternate prey species like red squirrels (Koehler and Aubry 1994, McKelvey, Aubry, and Ortega 2000, Ruediger et al. 2000, and Stinson 2001). Natal denning habitat (downwood debris) can also occur in young stands of lynx habitat (Ruediger et al. 2000 and Stinson 2001). Lynx habitat currently in an unsuitable condition includes early successional stages that have not developed sufficiently to support snowshoe hare populations during all seasons.

Various viewpoints concerning lynx habitat and distribution were considered by the authors of the often referenced Ecology and Conservation of Lynx in the United States (Ruggiero et al. 2000) and the Canada Lynx Conservation Assessment and Strategy (LCAS) [Ruediger et al. 2000]. These publications along with subsequent updates and recommendations from the Lynx Steering Committee represents the most creditable and applicable synthesis of science concerning the ecology, management and conservation of lynx and lynx habitat in the contiguous United States.

Lynx habitat occurs in the higher elevations of Upper Charley analysis area. Habitat within Upper Charley analysis area also occurs within the Asotin Lynx Analysis Unit (LAU) on the Forest. Lynx habitat, mapped in Upper Charley analysis area, was field verified in 1999-2000 by the District Biologist (Johnson 1999/2000). Field verification resulted in a change in the amount of lynx habitat for the Upper Charley analysis area and Asotin LAU, and the proportion of habitat in foraging, denning and unsuitable condition (Johnson 1999/2000 and Johnson 2001). Changes to maps, based on field verification, were documented in the Upper Charley Analysis Area Lynx Habitat Report (Johnson 1999/2000) and Biological Assessment of the Upper Charley Ecosystem Restoration Projects on North American Lynx Habitat in the Asotin Lynx Analysis Unit (Johnson 2001). Table III-19A displays the current amount and condition of lynx habitat in the Upper Charley analysis area and Asotin LAU.

**Table III-19A - Lynx Habitat in the Upper Charley Analysis area and Asotin Lynx Analysis Unit.**

Analysis Area	Units	Foraging Habitat	Denning Habitat	Unsuitable Habitat	Total Lynx Habitat
Asotin LAU	Acres	23,217	9,866	8,363	41,446
	Percent <sup>1</sup>	56%	24%	20%	100%
Upper Charley	Acres	712	0	379	1,091
	Percent <sup>1</sup>	<2%	0%	1%	<3%

<sup>1</sup> Percentages are based on the Total Lynx Habitat acreage for the Asotin LAU.



# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter III – Affected Environment

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From the 7,650 acres in the Upper Charley analysis area, approximately 1,091 acres are considered lynx habitat. Seven hundred twelve (712) acres are considered foraging habitat and 379 acres are in an unsuitable condition. Denning habitat does not currently occur in Upper Charley analysis area. Lynx habitat in Upper Charley analysis area is about 3% of the lynx habitat in the Asotin LAU. In the Asotin LAU, 56% of the lynx habitat is considered forage habitat, 24% denning habitat, and 20% is in an unsuitable condition. Since 2000, and prior to this analysis, approximately 210 acres (< 1%) of lynx habitat in the LAU was changed from a suitable condition to an unsuitable condition. Habitat in Upper Charley analysis area is connected to habitat in the Asotin LAU. Linkage areas do not occur in the analysis area or the Asotin LAU, because highways or private land inholding do not interrupt habitat connectivity in the LAU. The Asotin LAU occurs entirely within the Umatilla National Forest Lands. Therefore linkage areas would not be affected by the proposed action.

To evaluate and measure the effects of the proposed actions to lynx habitat the following criteria will be used;

- Changes in foraging/unsuitable habitat in the Charley Analysis area.
- Percent of forage habitat in the Asotin LAU.
- Percent of habitat in an “unsuitable” condition in the Asotin LAU.
- Percent of unsuitable habitat changed from a suitable condition (forage and denning) in the Asotin LAU, since the Canada Lynx was listed in 2000.

Denning habitat will not be evaluated or measured because denning habitat does not occur in the Upper Charley analysis area and therefore will not be affected by the proposed actions.

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### **THREATENED, ENDANGERED AND SENSITIVE PLANT SPECIES**

No change from FEIS.

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### **RECREATION**

No change from FEIS.

## **ECONOMIC FACTORS**

### **NON-TRADITIONAL ECONOMIC FACTORS - QUALITATIVE RESOURCES**

No change from FEIS.

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

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### INTRODUCTION

No change from FEIS.

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### **PHYSICAL FACTORS**

There would be no change to environmental effects from implementing Alternatives A, B, C, D, or E as described in the FEIS for the following resources:

#### EFFECTS OF THE ALTERNATIVES ON SOIL RESOURCES

#### EFFECTS OF THE ALTERNATIVES ON WATER QUALITY/FISH HABITAT

#### EFFECTS OF THE ALTERNATIVES ON FIRE and FUELS and AIR QUALITY

#### EFFECTS OF THE ALTERNATIVES ON RANGE

#### EFFECTS OF THE ALTERNATIVES ON TRANSPORTATION – ROADS

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### **BIOLOGICAL FACTORS**

There would be no change to environmental effects from implementing Alternatives A, B, C, D, or E as described in the FEIS for the following resources:

#### EFFECTS OF THE ALTERNATIVES ON ECOSYSTEM SUSTAINABILITY – VEGETATION

#### EFFECTS OF THE ALTERNATIVES ON NOXIOUS WEEDS

#### EFFECTS OF THE ALTERNATIVES ON BIG GAME (ELK) HABITAT

#### EFFECTS OF THE ALTERNATIVES ON MANAGEMENT INDICATOR SPECIES and NEOTROPICAL BIRDS

#### EFFECTS OF THE ALTERNATIVES ON THREATENED, ENDANGERED OR SENSITIVE AQUATIC SPECIES

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

### EFFECTS OF THE ALTERNATIVES ON THREATENED, ENDANGERED AND SENSITIVE TERRESTRIAL SPECIES

In the FEIS remove text and tables beginning with the second paragraph (Approximately 2,653 acres of the ....) in Chapter IV on page 46 through to page 49. Insert the following text and tables:

#### **EFFECTS COMMON TO ALL ALTERNATIVES**

##### Direct Effects

Canada lynx is not known to occur in the Upper Charley analysis area or Asotin LAU, and are considered dispersers/transients to the Blue Mountains. Given the lack of occurrence in the analysis area, lynx movement, productivity, and mortality would not be affected. Therefore, lynx would not be adversely affected by the proposed action in the alternatives.

#### **NO ACTION – ALTERNATIVE - A**

##### Direct and Indirect Effects

With the current management direction in the Upper Charley analysis area, lynx habitat would remain essentially unchanged for the short term (< 10 years). Vegetation in the analysis area would continue to grow and develop but not substantially to affect a change in lynx habitat condition in Upper Charley analysis area. Therefore, no change in lynx habitat condition in Upper Charley analysis area would result, and there also would be no change in habitat condition in the Asotin LAU. As identified in Table IV-15, foraging habitat would remain at 56%, denning habitat at 24%, and unsuitable habitat at 20% for the Asotin LAU. The amount of habitat changing from a suitable condition to an unsuitable condition, since 2000, would remain at < 1% for the Asotin LAU. Connectivity between stands of lynx habitat in Upper Charley analysis area and across the Asotin LAU would be maintained in its current condition.

**Table IV-15 Comparison of Lynx Habitat Condition in the Asotin LAU for Each Alternative**

Alternative	Unit	Foraging Habitat	Denning Habitat	Unsuitable Habitat	Total Lynx Habitat
<b>A</b> (No Action)	Acres	23,217	9,866	8,363	41,446
	Percent <sup>1</sup>	56%	24%	20%	100%
<b>B</b>	Acres	22,830	9,866	8,750	41,446
	Percent <sup>1</sup>	55%	24%	21%	100%
<b>C</b>	Acres	22,970	9,866	8,610	41,446
	Percent <sup>1</sup>	55%	24%	21%	100%
<b>D</b>	Acres	23,217	9,866	8,363	41,446
	Percent <sup>1</sup>	56%	24%	20%	100%
<b>E</b>	Acres	22,857	9,866	8,723	41,446
	Percent <sup>1</sup>	55%	24%	21%	100%

<sup>1</sup> Percentages are based on the total amount of lynx habitat in the Asotin LAU (41,446 ac.).

Based on current management direction overtime (> 10 years), the vegetative composition and forest structure could change resulting in a change in lynx habitat condition in Upper Charley analysis area. Most likely, over the next 10-20 years, the amount of forage habitat could increase and unsuitable habitats could decrease. This could occur because previously harvested stands (unsuitable) would regenerate and grow into young pole stands that provide habitat for lynx to forage on snowshoe hare. With the potential increase of 379 acres of forage habitat (Table III-19A) in the Upper Charley analysis area, the amount of forage habitat in the LAU could increase by 1%. As a result natural tree mortality

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

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and/or sporadic insect or disease outbreaks dead standing and downwood could increase slightly, although not measurably during this period of time, in the analysis area potentially creating denning habitat. As a result of potential changes in vegetation structure in the Upper Charley analysis area forage habitat could increase to 57%, denning habitat would remain near 24%, and unsuitable habitat could decrease to 19% for the Asotin LAU. The amount of unsuitable habitat in the LAU is well below the amended Forest Plan standard that limits the amount of unsuitable habitat in a LAU to no more than 30%. The amount of habitat changing from a suitable condition to an unsuitable condition would remain at < 1%, since 2000 for the LAU. This is consistent with the amended Forest Plan standard requiring no more than 15% of suitable lynx habitat changing to an unsuitable condition for a 10-year period, within a LAU. Connectivity between stands of lynx habitat in the Upper Charley analysis area and the Asotin LAU could also improve with the growth and development of previously unsuitable stands of lynx habitat.

A major wildfire or large insect epidemic across the landscape could also change the composition and forest structure in the Upper Charley analysis area to an open grass/shrub condition with little or no tree cover. Essentially, 712 acres of forage habitat (Table III-19A) could change to an unsuitable habitat condition in the analysis area. Some amount of dead standing and downwood, resulting from the disturbance, could remain potentially providing denning habitat at some point in the future (> 20 years after the disturbance). As a result of these potential changes in the Upper Charley analysis area, forage habitat could decrease to 54%, denning habitat would remain near 24%, and unsuitable habitat could increase to 22% for the Asotin LAU. The amount of unsuitable habitat in the LAU would be consistent with the amended Forest Plan standard limiting the amount to no more than 30%. A major disturbance would not be considered a management action in the analysis area and therefore the amount of lynx habitat changed from a suitable to unsuitable condition in the Asotin LAU would remain at < 1%, since 2000. This is consistent with the amended Forest Plan standard requiring no more than 15% for a 10-year period, within a LAU. Connectivity could initially be eliminated in the Upper Charley analysis area if a large disturbance occurred in the area. However, lynx habitat in the Upper Charley analysis area occurs as the northern outer edge of lynx habitat in the Asotin LAU and therefore connectivity could be maintained to the south, around the analysis area. Lynx habitat stands outside the analysis area could remain undisturbed and therefore connected across the Asotin LAU.

### **ACTION ALTERNATIVES - B, C, and E**

#### Direct and Indirect Effects Common to Alternatives B, C, and E

Proposed harvest treatments within lynx habitat in the Upper Charley analysis area would convert about 1% (247-387 ac.) of foraging habitat to an unsuitable condition. Harvesting would open the canopy enough, to allow the development of a dense understory of shade tolerant tree species. Shade tolerant tree species like subalpine fir, Engelmann spruce, and grand fir, are preferred by snowshoe hare as forage species. The less preferred, Western larch would be retained only if insufficient numbers of preferred tree species were not present. Trees remaining within the unit after harvest could potentially provide habitat for alternate prey species (squirrels, chipmunks, etc.) allowing lynx to forage in the area. The unsuitable habitat condition is expected to last 15-20 years at which time the developing understory would reach sufficient height (i.e., > 8-10' tall) and density to provide snowshoe hare habitat.

Fuels treatments within harvest units include grapple piling and jackpot prescribed burning (HJP) to reduce slash created from harvest activities. Fuels (fine and coarse) would be grapple piled in open areas to minimize mortality to the residual overstory when the unit is burned. Jackpot burning would

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## Chapter IV – Environmental Consequences

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be limited to slash piles in order to maintain the overstory, understory, and downed logs of spruce and fir in harvested units. In addition, jackpot burning and/or scattered slash concentrations burned could provide suitable conditions to open serotinous lodgepole pine cones and encourage the development of desirable snowshoe hare winter forage species in the understory.

Within harvest units that have ground based skidding adjacent to foraging habitat; down and/or cull logs would be loosely grapple piled and not burned to provide potential denning structures. These jackstraw log piles could eventually develop into lynx denning habitat in 20-25 years, once the unit has developed into forage habitat. Currently, denning habitat is not a component of lynx habitat in the Upper Charley analysis area.

Proposed road management activities including, reconstruction and obliteration (system and temporary), would occur within/adjacent to lynx habitat in the Upper Charley analysis area. These roads are considered unsuitable habitat because of the lack of vegetative cover that could provide forage habitat. After reconstruction and obliteration, these roads are expected to remain in an unsuitable condition. Eventually (> 15 years), obliterated road would re-vegetate and blend into adjacent forest cover and provide suitable lynx habitat (forage/denning). Snowmobile use and resultant snow compaction is expected to be at pre-harvest levels, because additional snow trail grooming would not occur in the area to increase use and snow compaction. Overall road density in Upper Charley analysis area would be reduced slightly (UCSEP-DEIS, page IV-21) as a result of proposed road management activities. A reduction in road density in the Upper Charley analysis area would also result in a slight reduction in road density in the Asotin LAU.

Lynx may avoid moving through some harvested areas like shelterwood, however, movement could occur around treated stands where habitat connectivity is maintained. Other treatments like thinning could facilitate lynx movement because; the majority of the overstory would be maintained providing cover and habitat for alternate prey species. In addition, uneven-aged management could also allow lynx movement through the unit because the 2-acre openings resulting from the treatment would maintain the distance to cover to less than 325 feet (Koehler 1990). Any potential reduction in habitat connectivity through a treated stand would be restored within 10-15 years, when vegetation reaches sufficient height to provide cover for lynx movement.

Table IV-15 displays the effects of proposed activities to lynx habitat in the Asotin LAU for alternatives B, C, and E. Overall, the amount of foraging habitat in the Asotin LAU would decrease by 1% and unsuitable habitat would increase by 1%; resulting in 55% forage habitat and 21% unsuitable habitat in the LAU for alternative B, C, and E. The amount of unsuitable habitat in the Asotin LAU is consistent with the Forest Plan because 21% unsuitable habitat is 9% below amended Forest Plan standard that limits unsuitable habitat to no more than 30% in a LAU. Denning habitat could eventually occur (> 10 years) in the analysis area, but currently does not occur in Upper Charley analysis area. Therefore, denning habitat is not affected by proposed activities and remains at 24% in the Asotin LAU for all alternatives (Table IV-15). The amount of denning habitat in the Asotin LAU is consistent with the Forest Plan because 24% denning habitat is 14% above the amended Forest Plan standard that requires a minimum of 10% within a LAU. Lynx habitat in Upper Charley analysis remains connected to habitat in the Asotin LAU. Habitat connectivity would be maintained in its current condition in the remaining portion of the Asotin LAU. Therefore, habitat connectivity in the Upper Charley analysis area is consistent with the Forest Plan standards and guidelines as amended. As a result of management actions in the Charley analysis area, 1% of lynx habitat changed from a suitable to unsuitable habitat condition in the Asotin LAU for the proposed activities in alternatives, B, C, and E. Overall, the direct and indirect effects of the proposed activities in alternative B, C, and E,



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and consistency with the Forest Plan as amended; lynx movement, productivity, and mortality would not be affected. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).

The incorporation of objectives, standards, and guidelines into the Umatilla Forest Plan specific to Canada lynx is specific to the purpose and need and actions in the alternatives for the Upper Charley project only. This amendment would not preclude or require other amendments specific to lynx and this amendment would not preclude or require other action across the forest in lynx habitat. For example, the incorporation of this management direction would not affect the amount of timber made available for public use outside this project area nor would there be changes in livestock grazing and recreation permits or plans of operations for mining. This amendment would not change or require future changes to the access and travel management plan for the Ranger District.

### Cumulative Effects for Alternatives B, C, and E

Past management activities (timber harvest, fire suppression, etc.) and natural disturbances (wind throw, wildfire, insect/disease, etc.) have lead to the current condition and distribution of habitat in the Asotin LAU. This has resulted in 56% of the LAU in foraging habitat, 24% in denning, and 20% in unsuitable condition (Table III-19A). Since 2000, past management actions in the LAU have resulted in 210 acres (< 1%) of lynx habitat changing from a suitable to an unsuitable habitat condition.

Table IV-15 shows the expected change in the lynx habitat condition in the Asotin LAU for each alternative. When compared to the “No Action” alternative (A), forage habitat decreases by 1% and unsuitable habitat increase by 1% as a result of the proposed timber harvest and prescribe burning occurring in alternatives B, C, and E. In addition, proposed road obliteration for each alternative would not change suitable habitat to an unsuitable condition. Therefore, the amount of unsuitable habitat in the Asotin LAU would increase to 21% as a result of past and proposed actions in the LAU. Denning habitat does not occur in the Upper Charley analysis area and therefore would not change and remain at 24% in the Asotin LAU. Habitat connectivity would be maintained, either through treated units or around treated units allowing lynx movement through the area. Lynx habitat in the Upper Charley analysis remains connected to habitat in the Asotin LAU. Habitat between the Asotin LAU and the Wenaha LAU to the south would not be affected by current actions, since the Upper Charley analysis area occurs on the northern edge of the Asotin LAU. Therefore, habitat connectivity is consistent with the amended Forest Plan. Based on the proposed management actions in the Charley analysis area, 1% of suitable habitat (foraging) would change to an unsuitable condition. Prior to the Upper Charley analysis, < 1% of lynx habitat changed from suitable to an unsuitable condition in the Asotin LAU. Together with present and past management action in the LAU, 2% of lynx habitat in the LAU would have changed from a suitable to an unsuitable condition, since the listing of Canada Lynx in 2000.

Proposed future vegetative altering projects that could occur in the Asotin LAU include Lower Tucannon Ecosystem Management Project, Peola Cattle and Horse Grazing Allotment, and South Prescribed Fire Project. Potential vegetative treatments are not expected to occur in lynx habitat or move lynx habitat to an unsuitable condition. No other reasonable foreseeable future actions that could manipulate lynx habitat are expected to occur in Asotin LAU. Therefore, no additional effects are expected to change lynx habitat in the LAU.

Based on cumulative affects of past, present, and future actions in Asotin LAU, foraging habitat would consist of 55%, denning habitat would remain unchanged at 24%, and unsuitable habitat would occur at 21%. Therefore, unsuitable habitat would be 9% below the amended Forest Plan standard that

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## Chapter IV – Environmental Consequences

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limits the amount of unsuitable habitat in a LAU to no more than 30%, therefore, is consistent with the amended Forest Plan. Denning habitat is 14% above the amended Forest Plan standard that requires a minimum of 10% denning habitat within a LAU, and therefore is consistent with the amended Forest Plan. Habitat connectivity would be maintained, in the area allowing lynx movement through the analysis area and across the Asotin LAU. Habitat connecting the Asotin LAU with the Wenaha LAU to the south would not be affected by past, present, and future actions, therefore, habitat connectivity is consistent with the amended Forest Plan. The 2% change in habitat since 2000 is currently within the amended Forest Plan standard that requires no more than 15% of the lynx habitat, in a unsuitable condition for a 10 year period, within a LAU. Overall, cumulative effects are consistent with Forest Plan standards and guidelines as amended (Appendix C – Lynx Management Direction). Based on cumulative effects; lynx movement, productivity, and mortality would not be affected by proposed activities in alternatives B, C, and E. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).

Because the amendment only applies to lynx habitat within Upper Charley analysis area for the duration of that project there are no other required changes in the Forest Plan, or required actions across the forest in other areas within lynx habitat. Incorporation of this management direction would not cumulatively affect the amount of timber made available for public use nor would there be changes in livestock grazing and recreation permits or plans of operations for mining in other areas of the forest because there are not direct and indirect impacts to these resources anticipated. This amendment would not change or require future changes to access and travel management plans. All other cumulative effects of amending the Forest Plan for lynx are as described for direct and indirect effects.

### Determination Of Effects for Alternatives B, C, and E

The vegetative resource management actions proposed within lynx habitat, for alternatives B, C, and E in the Upper Charley Subwatershed Ecosystem Projects EIS, would have a determination of may effect, not likely to adversely affect for the Canada Lynx (Johnson 2001). This determination is based on the following rational (Johnson 2001):

- Proposed timber harvest, prescribed burning, and road obliteration actions would convert approximately one (1) percent of suitable (foraging) lynx habitat to an unsuitable habitat condition. This would put the amount of unsuitable habitat in the Asotin LAU at 21 %, which is well below the 30% minimum in the identified in the amended Forest Plan.
- The amount of unsuitable habitat expected to change from suitable to unsuitable, since Canada Lynx listing in 2000, is 2% of the lynx habitat in the Asotin LAU. This is 13% below the maximum identified in the amended Forest Plan.
- Denning habitat would not be affected, because denning habitat does not occur in Upper Charley analysis area. The potential for denning habitat to occur in the future could occur from the creation of numerous log piles being created adjacent to foraging habitat.
- Pre-commercial thinning would not occur in lynx habitat.
- Proposed harvest and burning actions are designed to maintain or enhance snowshoe hare habitat and therefore, consistent with the amended Forest Plan.

A summary of the completed Biological Findings for proposed actions within the Upper Charley analysis area is presented in Table IV-16.

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## Chapter IV – Environmental Consequences

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### ACTION ALTERNATIVE - D

#### Direct and Indirect Effects

Within the Charley analysis area, 242 acres of lynx habitat would be prescribed burning to reduce fuel loading. Mechanical treatment of heavy fuel concentrations would not occur in lynx habitat. Commercial harvest would not occur in this alternative. Prescribe burning would take place over a 10-15 year period. Prescribe burns would be understory burns with low flame lengths to maintain the existing overstory structure and composition. After the burn, the units would appear as mosaics of burned and unburned areas. Existing fir and spruce trees would be maintained in the units. The burn could consume saplings and seedlings and small diameter downed logs. However, the prescribed burning would also provide suitable conditions to open serotinous lodgepole pine cones and to encourage the establishment of desirable snowshoe hare forage species in the understory. Ultimately, a young healthy stand of saplings would develop and eventually (> 15 years) provide quality winter habitat for snowshoe hare.

Prescribe burns would occur in foraging habitat. Because of the low intensity, mosaic burn occurring in the proposed units, the forage condition is expected to remain unchanged. After treatment, stands (242 acres) are expected to provide lynx habitat suitable for foraging. The proposed prescribe burn in lynx habitat would not change suitable lynx habitat to unsuitable habitat in the Charley analysis area.

Table IV-15 displays the effects of proposed activities to lynx habitat in the Asotin LAU for alternatives D. Overall, lynx habitat in the Upper Charley analysis area would remain at 2% foraging and 1% unsuitable. Denning habitat would not be affected by the action, because it does not occur in the analysis area.

The amount of unsuitable habitat in the Asotin LAU is consistent with the Forest Plan because 20% unsuitable habitat is 10% below the amended Forest Plan standard that limits unsuitable habitat to no more than 30% in a LAU. Denning habitat could eventually occur (> 10 years) in the analysis area, but currently does not occur in the Upper Charley analysis area. Therefore, denning habitat is not affected by the proposed activities, and remains at 24% in the Asotin LAU (Table IV-15). The amount of denning habitat in the Asotin LAU is consistent with the Forest Plan because 24% denning habitat is 14% above the amended Forest Plan standard that requires a minimum of 10% within a LAU. Lynx habitat in the Upper Charley analysis remains connected to habitat in the Asotin LAU. Habitat connectivity would be maintained in its current condition in the remaining portion of the Asotin LAU. Therefore, habitat connectivity in the Upper Charley analysis area is consistent with the Forest Plan standards and guidelines as amended. As a result of management actions in Upper Charley analysis area, 0% of lynx habitat changed from a suitable to unsuitable habitat condition in the Asotin LAU for proposed Alternative D. Overall, direct and indirect effects of Alternative D, and consistency with the Forest Plan as amended; lynx movement, productivity, and mortality would not be affected. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).

#### Cumulative Effects

Past management activities (timber harvest, fire suppression, etc.) and natural disturbances (wind throw, wildfire, insect/disease, etc.) have lead to the current condition and distribution of habitat in the Asotin LAU. This has resulted in 56% of the LAU in foraging, 24% in denning, and 20% in unsuitable (Table III-19A) habitat condition. Since 2000, past management actions in the LAU have accumulated 210 acres (< 1%) of lynx habitat changing from a suitable to an unsuitable habitat condition.



# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

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Table IV-15 shows the expected change in the lynx habitat condition in the Asotin LAU for Alternative D. When compared to the “No Action” Alternative (A), forage habitat and unsuitable habitat did not change, as a result of proposed prescribe burning in the Upper Charley analysis area. In addition, proposed road obliteration is not expected to change suitable habitat to an unsuitable condition. Therefore, the amount of unsuitable habitat in the Asotin LAU would increase to 21% as a result of past and proposed actions in the LAU. Denning habitat could eventually occur (> 10 years) in the analysis area, but currently does not occur in the Upper Charley analysis area. Therefore, denning habitat would not change and remain at 24% in the Asotin LAU as a result of past and proposed actions. Habitat connectivity would be maintained, through and around treated units, allowing lynx movement across the area. Lynx habitat in Upper Charley analysis area remains connected to habitat in the Asotin LAU. Habitat between the Asotin LAU and the Wenaha LAU to the south would not be affected by current actions, since Upper Charley analysis area occurs on the northern edge of the Asotin LAU. Therefore, habitat connectivity is consistent with the amended Forest Plan. Based on proposed management action in Upper Charley analysis area, suitable habitat (foraging) is not expected to change to an unsuitable condition. Prior to Upper Charley analysis, < 1% of lynx habitat changed from suitable to an unsuitable condition in the Asotin LAU. Together with present and past management action in the LAU, < 1% of the lynx habitat in the LAU would have changed from a suitable to an unsuitable condition, since the listing of Canada Lynx in 2000.

Future vegetative manipulation projects that could occur in the Asotin LAU include the Lower Tucannon Ecosystem Management Projects. Potential vegetative treatments in the Tucannon watershed are not expected to include timber harvest or prescribe burning in that portion of the Asotin LAU containing lynx habitat. No other reasonable foreseeable future actions that could manipulate lynx habitat are expected to occur in the Asotin LAU. Therefore, no additional effects are expected to change lynx habitat in the LAU.

Based on cumulative affects of past, present, and future actions in the Asotin LAU, foraging habitat would consist of 56% of the LAU, denning habitat would remain unchanged at 24%, and unsuitable habitat would occur at 20%. Therefore, unsuitable habitat would be 10% below the amended Forest Plan standard that limits the amount of unsuitable habitat in a LAU to no more than 30%, and therefore is consistent with the Forest Plan. Denning habitat is 14% above the amended Forest Plan standard that requires a minimum of 10% denning habitat within a LAU, and therefore is consistent with the amended Forest Plan. Habitat connectivity would be maintained, in the area allowing lynx movement through the analysis area and across the Asotin LAU. Habitat connecting the Asotin LAU with the Wenaha LAU to the south would not be affected by past, present, and future actions, therefore habitat connectivity is consistent with the amended Forest Plan. The < 1% change in habitat since 2000 is currently within the amended Forest Plan standard that requires no more than 15% of the lynx habitat, in a unsuitable condition for a 10 year period, within a LAU. Overall, cumulative effects are consistent with the Forest Plan standards and guidelines as amended (Appendix C- Lynx Management Direction). Based on the cumulative effects; lynx movement, productivity, and mortality would not be affected by proposed activities in alternative D. Therefore, the action does not have an adverse effect on lynx or their habitat and is expected to lead to the conservation of the species (Ruediger et al. 2000).

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

**Table IV-16 Summary of the Determination of Effects for all Endangered, Threatened, and Sensitive Terrestrial Species Occurring or Suspected of Occurring within the Upper Charley analysis area**

STATUS	SPECIES	HABITAT SUITABILITY	ALTERNATIVES				
			A	B	C	D	E
Federally Listed or Proposed for Listing	Northern bald eagle	No habitat in area	NE	NE	NE	NE	NE
	Peregrine falcon	No habitat in area	NE	NE	NE	NE	NE
	Gray wolf	No habitat in area	NE	NE	NE	NE	NE
	Canada Lynx	Potential habitat	NE	NLAA	NLAA	NE	NLAA
Region 6 Sensitive Species for the Umatilla National Forest	Preble's shrew	No habitat in area	NI	NI	NI	NI	NI
	Townsend's big-eared bat	No habitat in area	NI	NI	NI	NI	NI
	California bighorn sheep	No habitat in area	NI	NI	NI	NI	NI
	California wolverine	Travelway habitat	NI	MIITH	MIITH	MIITH	MIITH
	Ferruginous hawk	No habitat in area	NI	NI	NI	NI	NI
	Long-billed curlew	No habitat in area	NI	NI	NI	NI	NI
NE – No Effect NLAA – May Effect, Not Likely to Adversely Affect NI – No Impact MIITH – May impact individuals or habitat but will not likely contribute to a trend toward Federal listing or loss of viability to the species.							

### EFFECTS OF THE ALTERNATIVES ON THREATENED, ENDANGERED AND SENSITIVE PLANT SPECIES

No Change from FEIS.

### EFFECTS OF THE ALTERNATIVES ON RECREATION RESOURCES

No Change from FEIS.

## ECONOMIC FACTORS

### EFFECTS OF THE ALTERNATIVES ON NON TRADITIONAL ECONOMIC FACTORS - QUALITATIVE RESOURCES

No Change from FEIS.

## SPECIFICALLY REQUIRED DISCLOSURES

#### **National Historic Preservation Act.**

No Change from FEIS.

**Endangered Species Act** – All action alternatives would comply with Forest Plan (as amended) direction to manage habitat for recovery of threatened and endangered species, and maintain and/or improve habitat and habitat diversity for minimum viable populations.

The Endangered Species Act requires protection of all species listed as "Threatened" or "Endangered" by federal regulating agencies (Fish and Wildlife Service and National Marine Fisheries Service). Section 7

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

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of the Act requires federal agencies to insure that any action authorized, funded, or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

This Supplemental Draft EIS hereby incorporates by reference Biological Evaluations and Assessments completed for all TE&S plant, aquatic and terrestrial wildlife (located in analysis file). Determinations were made in the BEs that none of the proposed projects would adversely affect, contribute to a trend toward Federal listing, nor cause a loss of viability to listed plant, aquatic, and animal populations or species. Also incorporated by reference are the following:

- Letter of concurrence (February 20, 2001) from U.S. Fish and Wildlife Service on Programmatic Biological Assessment of Proposed Projects for the Umatilla Forest on Canada lynx are in the analysis file. This document represents the Service's biological concurrence on the effects of that action on the Canada Lynx, in accordance with Section 7 (a) (2) of the Endangered Species Act of 1973 as amended (Act).
- Letter of concurrence (February 11, 2002) from U.S. Department of Commerce National Oceanic and Atmospheric Administration concluding informal consultation under the Endangered Species Act, Section 7 and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Upper Charley Subwatershed Ecosystem Restoration Projects.
- Management direction (objectives, standards, and guidelines) taken from and consistent with conservation measures in Chapter 7 of the Canada Lynx Conservation Strategy (Ruediger et al. 2000). (See Appendix C – Lynx Management Direction for listing of objectives, standards, and guidelines.)
- Canada Lynx Conservation Agreement between the U.S. Forest Service and U.S. Fish and Wildlife Service (USDA, Forest Service 2005).
- Biological Assessment of the Effects of National Forest Land and Resource Management Plans (Hickenbottom et al. 1999) and subsequent Biological Opinion on the Biological Assessment (USDI, Fish and Wildlife Service 2000).

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### **Wild and Scenic River Act**

No Change from FEIS.

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### **Prime Farmland, Range Land and Forest Land**

No Change from FEIS.

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### **Civil Rights, Women and Minorities**

No Change from FEIS.

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### **National Forest Management Act Compliance**

No Change from FEIS.

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### **Wetlands and Floodplains**

No Change from FEIS.

# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter IV – Environmental Consequences

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### Energy Requirements

No Change from FEIS.

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### Public Health and Safety

No Change from FEIS.

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### Environmental Justice

No Change from FEIS.

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### Roadless Areas –

Insert in FEIS under this heading.

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Implementation of any of the action alternatives is in accordance with the agency's reinstated interim directive numbered ID 1920-2004-1, which reinstates interim direction ID 1920-2001-1 (issued December 14, 2001, and expired June 14, 2003).

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## OTHER RESOURCE CONCERNS AND OPPORTUNITIES

### Probable Adverse Environmental Impacts that Cannot be Avoided

No Change from FEIS.

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### Congressionally Designated Areas

No Change from FEIS.

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### Research Natural Areas

No Change from FEIS.

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### Relationship Between Short-Term Use and Long-Term Productivity

No Change from FEIS.

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### Irreversible and Irretrievable Commitment of Resources

No Change from FEIS.

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### Potential Conflicts with Plans and Policies of Other Jurisdictions

No Change from FEIS.

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter V – List of Preparers

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### INTERDISCIPLINARY TEAM:

Insert in FEIS Chapter V page 1.

#### NAME

Bill Dowdy

#### ANALYSIS CONTRIBUTION

Wildlife Biologist

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### OTHER CONTRIBUTORS:

No change from FEIS.

---

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter V – List of Preparers

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# Upper Charley Draft Supplemental Environmental Impact Statement

## Chapter V – List of Preparers

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### State Agencies:

No change from FEIS.

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### County Agencies:

Columbia County – Board of Commissioners

---

### Native Americans:

No change from FEIS.

---

### Organizations:

The Lands Council – Mike Peterson and Ellen Picken w/copies to:

- Hells Canyon Preservation Council – Gregory Dyson
- National Forest Protection Alliance
- Blue Mountain Biodiversity/League of Wilderness Defense – Asante Riverwind
- Idaho Sporting Congress – Ron Mitchell

Blue Mountain Biodiversity Project – Karen Coulter

Oregon Natural Resource Council – Doug Heiken

---

### Businesses:

Boise Building Solutions, Wood Products – Bob Messinger

Boise Cascade Corporation– Bill Dryden – Bill Van Hole

Haglund, Kirtley, Kelley, Horngren and Jones – Scott Horngren

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### Individuals:

Rachel Thomas

# Upper Charley Draft Supplemental Environmental Impact Statement

## Glossary, Literature Cited, Index, Appendix A and B

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### GLOSSARY

No change from FEIS.

---

### LITERATURE CITED

Add the following citations to FEIS:

- Agee, J. K. 2000. Disturbance ecology of North American boreal forests and associated northern mixed/subalpine forests. Pages 39-82, chapter 3 *in* Ecology and Conservation of Lynx in the United States. USDA Forest Service, RMRS-GRT-30WWW and University of Colorado Press. 480pp.
- Aubrey, K. B., G. M. Koehler, and J. R. Squires 2000. Ecology of Canada lynx in southern boreal forests. Pages 373-396, chapter 13 *in* Ecology and Conservation of Lynx in the United States. USDA Forest Service, RMRS-GRT-30WWW and University of Colorado Press. 480pp.
- Gobar, C. F. Potential Lynx Habitat: Umatilla National Forest. USDA, Forest Service, Umatilla National Forest; Pendleton, OR.
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### INDEX

No change from FEIS.

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### APPENDIX A – HARVEST INDEX SUMMARY

No change from FEIS.

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### APPENDIX B – GENERAL WATER QUALITY BEST MANAGEMENT PRACTICES

No change from FEIS.

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Insert in FEIS after Appendix B.

## **APPENDIX C**

### **LYNX MANAGEMENT DIRECTION**

#### **Umatilla Forest Plan Amended for the Upper Charley Subwatershed Ecosystem Restoration Projects**

The following are lynx management objectives, standards, and guidelines incorporated into the Land and Resource Management Plan, Umatilla National Forest (1990) for the site-specific project called Upper Charley Subwatershed Ecosystem Restoration Projects (2000). The standards and guidelines address the risk to lynx productivity, movement, and mortality, in order to conserve lynx, and to reduce or eliminate adverse effects from management activities (Ruediger et al. 2000) on the Umatilla National Forest lands. Implementation of the following standards and guidelines is expected to support the management of lynx and their habitat and lead to the conservation of the species (Ruediger et al. 2000). This direction applies only to lynx habitat within Lynx Analysis Units (LAU).

#### **1.0. ALL PROGRAMS AND ACTIVITIES**

##### **1.1. Programmatic Objectives**

Design vegetation management strategies that are consistent with historical succession and disturbance regimes. The broad-scale strategy should be based on a comparison of historical and current ecological processes and landscape patterns, such as age-class distributions and patch size characteristics. It may be necessary to moderate the timing, intensity, and extent of treatments to maintain all required habitat components in lynx habitat, to reduce human influences on mortality risk and interspecific competition, and to be responsive to current social and ecological constraints relevant to lynx habitat.

To sustain lynx populations through time, maintain or enhance the snowshoe hare prey base by providing vegetation with dense horizontal cover.

##### **1.1.1. Standards**

1. Management direction will generally apply only to lynx habitat on Umatilla National Forest lands within Lynx Analysis Units (LAUs).
2. Lynx habitat will be mapped using criteria specific to each geographic area to identify appropriate vegetation and environmental conditions. Primary vegetation includes those types necessary to support lynx reproduction and survival. It is recognized that other vegetation types that are intermixed with the primary vegetation will be used by lynx, but are considered to contribute to lynx habitat only where associated with the primary vegetation.
3. To facilitate project planning, delineate LAUs. To allow for assessment of the potential effects of the project on an individual lynx, LAUs should be at least the size of area used by a resident lynx and contain sufficient year-round habitat.
4. To be effective for the intended purposes of planning and monitoring, LAU boundaries will not be adjusted for individual projects, but must remain constant.



# Upper Charley Draft Supplemental Environmental Impact Statement

## Lynx Management Direction

### Appendix C

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5. Prepare a broad-scale assessment of landscape patterns that compares historical and current ecological processes and vegetation patterns, such as age-class distributions and patch size characteristics. In the absence of guidance developed from such an assessment, limit disturbance within each LAU as follows: if more than 30 percent of lynx habitat within a LAU is currently in unsuitable condition, no further reduction of suitable conditions shall occur as a result of vegetation management activities.

#### 1.1.2. Guidelines

1. The size of LAUs should generally be 16,000 - 25,000 acres (25-50 square miles) in contiguous habitat, and likely should be larger in less contiguous, poorer quality, or naturally fragmented habitat. Larger units should be identified in the southern portions of the Northern Rocky Mountains Geographic Area (Oregon, and SE Washington). In the west, we recommend using watersheds (e.g., 6th code hydrologic unit codes (HUCs) in more northerly portions of geographic areas, and 5th code HUCs in more southerly portions). Coordinate delineation of LAUs with adjacent administrative units and state wildlife management agencies, where appropriate.
2. Areas with only insignificant amounts of lynx habitat may be discarded, or lynx habitat within the unit incorporated into neighboring LAUs. Based on studies at the southern part of lynx range in the western U.S., it appears that at least 6,400 acres (10 square miles) of primary vegetation should be present within each LAU to support survival and reproduction. The distribution of habitat across the LAU should consider daily movement distances of resident females (typically up to 3-6 miles).
3. After LAUs are identified, their spatial arrangement should be evaluated. Determine the number and arrangement of contiguous LAUs needed to maintain lynx habitat well distributed across the planning area.

#### 1.2. Project

##### 1.2.1. Standards

1. Within each LAU, map lynx habitat. Identify potential denning habitat and foraging habitat (primarily snowshoe hare habitat, but also habitat for important alternate prey such as red squirrels), and topographic features that may be important for lynx movement (major ridge systems, prominent saddles, and riparian corridors). Also identify non-forest vegetation (meadows, shrub-grassland communities, etc.) adjacent to and intermixed with forested lynx habitat that may provide habitat for alternate lynx prey species.
2. Within a LAU, maintain denning habitat in patches generally larger than 5 acres, comprising at least 10 percent of lynx habitat. Where less than 10 percent denning habitat is currently present within a LAU, defer any management actions that would delay development of denning habitat structure.
3. Maintain habitat connectivity within and between LAUs.

## **2.0. TIMBER MANAGEMENT**

### **2.1. Programmatic Objectives**

Evaluate historical conditions and landscape patterns to determine historical vegetation mosaics across landscapes through time. For example, large infrequent disturbance events may have been more characteristic of lynx habitat than small frequent disturbances.

Maintain suitable acres and juxtaposition of lynx habitat through time. Design vegetation treatments to approximate historical landscape patterns and disturbance processes.

If the landscape has been fragmented by past management activities that reduced the quality of lynx habitat, adjust management practices to produce forest composition, structure, and patterns more similar to those that would have occurred under historical disturbance regimes.

## **2.2. Project Objectives**

Design regeneration harvest, planting, and thinning to develop characteristics suitable for snowshoe hare habitat.

Design project to retain/enhance existing habitat conditions for important alternate prey (particularly red squirrel).

### **2.2.1. Standards**

1. Management actions (e.g., timber sales, salvage sales) shall not change more than 15 percent of lynx habitat within a LAU to an unsuitable condition within a 10-year period. *This period began with the listing of Canada Lynx in 2000 (calendar year).*
2. Following a disturbance, such as blowdown, fire, insects/pathogens mortality that could contribute to lynx denning habitat, do not salvage harvest when the affected area is smaller than 5 acres. Exceptions to this include:
  - a. Areas such as developed campgrounds; or
  - b. LAUs where denning habitat has been mapped and field validated (not simply modeled or estimated), and denning habitat comprises more than 10% of lynx habitat within a LAU. In these cases, salvage harvest may occur, provided that at least the minimum amount is maintained in a well-distributed pattern.
3. In lynx habitat, pre-commercial thinning will be allowed only when stands no longer provide snowshoe hare habitat (e.g., self-pruning processes have eliminated snowshoe hare cover and forage availability during winter conditions with average snowpack).
4. In aspen stands within lynx habitat in the Northern Rocky Mountains Geographic Areas, apply harvest prescriptions that favor regeneration of aspen.

### **2.2.2. Guidelines**

1. Plan regeneration harvests in lynx habitat where little or no habitat for snowshoe hare is currently available, to recruit a high density of conifers, hardwoods, and shrubs preferred by hares. Consider the following:
  - a) Design regeneration prescriptions to mimic historical fire (or other natural disturbance) events, including retention of fire-killed dead trees and coarse woody debris;
  - b) Design harvest units to mimic the pattern and scale of natural disturbances and retain natural connectivity across the landscape. Evaluate the potential of riparian zones, ridges, and saddles to provide connectivity; and
  - b) Provide for continuing availability of foraging habitat in proximity to denning habitat.
2. In areas where recruitment of additional denning habitat is desired, or to extend the production of snowshoe hare foraging habitat where forage quality and quantity is declining due to plant succession, consider improvement harvests (commercial thinning, selection, etc). Improvement harvests should be designed to:
  - a) Retain and recruit the understory of small diameter conifers and shrubs preferred by hares;
  - b) Retain and recruit coarse woody debris, consistent with the likely availability of such material under natural disturbance regimes; and
  - c) Maintain or improve the juxtaposition of denning and foraging habitat.
3. Provide habitat conditions through time that support dense horizontal understory cover, and high densities of snowshoe hares. This includes, for example, mature multi-storied

conifer vegetation in the west. Focus vegetation management, including timber harvest and use of prescribed fire, in areas that have potential to improve snowshoe hare habitat (dense horizontal cover) but that presently have poorly developed understories that have little value to snowshoe hares.

### **3.0. FIRE MANAGEMENT**

#### **3.1. Programmatic Objectives**

Restore fire as an ecological process. Evaluate whether fire suppression, forest type conversions, and other forest management practices have altered fire regimes and the functioning of ecosystems.

Revise or develop fire management plans to integrate lynx habitat management objectives. Prepare plans for areas large enough to encompass large historical fire events.

Use fire to move toward landscape patterns consistent with historical succession and disturbance regimes. Consider use of mechanical pre-treatment and management ignitions if needed to restore fire as an ecological process.

Adjust management practices where needed to produce forest composition, structure, and patterns more similar to those that would have occurred under historical succession and disturbance regimes.

Design vegetation and fire management activities to retain or restore denning habitat on landscape settings with highest probability of escaping stand-replacing fire events. Evaluate current distribution, amount, and arrangement of lynx habitat in relation to fire disturbance patterns.

#### **3.2. Project Objectives**

Use fire as a tool to maintain or restore lynx habitat.

When managing wildland fire, minimize creation of permanent travel ways that could facilitate increased access by competitors.

##### **3.2.1. Standards**

1. In the event of a large wildfire, conduct a post-disturbance assessment prior to salvage harvest, particularly in stands that were formerly in late successional stages, to evaluate potential for lynx denning and foraging habitat.
2. Design burn prescriptions to regenerate or create snowshoe hare habitat (e.g., regeneration of aspen and lodgepole pine).

##### **3.2.2. Guidelines**

1. Design burn-prescriptions to promote response by shrub and tree species that are favored by snowshoe hare.
2. Design burn prescriptions to retain or encourage tree species composition and structure that will provide habitat for red squirrels or other alternate prey species.
3. Consider the need for pre-treatment of fuels before conducting management ignitions.
4. Avoid constructing permanent firebreaks on ridges or saddles in lynx habitat.
5. Minimize construction of temporary roads and machine fire lines to the extent possible during fire suppression activities.



6. Design prescribed burn prescriptions and, where feasible, conduct fire suppression actions in a manner that maintains adequate lynx denning habitat (10% of lynx habitat per LAU).

## **4.0. RECREATION MANAGEMENT**

### **4.1. Programmatic Objectives**

Plan for and manage recreational activities to protect the integrity of lynx habitat, considering as a minimum the following:

- Minimize snow compaction in lynx habitat.
- Concentrate recreational activities within existing developed areas, rather than developing new recreational areas in lynx habitat.
- On Umatilla National Forest lands, ensure that development or expansion of developed recreation sites or ski areas and adjacent lands address landscape connectivity and lynx habitat needs.

Maintain the natural competitive advantage of lynx in deep snow conditions.

#### **4.1.1. Standards**

1. On Umatilla National Forest lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU unless the designation serves to consolidate unregulated use and improves lynx habitat through a net reduction of compacted snow areas. Note: This standard does not apply to ski areas: see Ski Areas/Large Resorts below.
2. Map and monitor the location and intensity of snow compacting activities (for example, snowmobiling, snowshoeing, cross-country skiing, dog sledding, etc.) that coincide with lynx habitat, to facilitate future evaluation of effects on lynx as information becomes available.
3. On Umatilla National Forest lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU. This is intended to apply to dispersed recreation, rather than existing ski areas.

#### **4.1.2. Guidelines**

1. Provide a landscape with interconnected blocks of foraging habitat where snowmobile, cross-country skiing, snowshoeing, or other snow compacting activities are minimized or discouraged.
2. As information becomes available on the impact of snow-compacting activities and disturbance on lynx, limit or discourage this use in areas where it is shown to compromise lynx habitat. Such actions should be undertaken on a priority basis considering habitat function and importance.

## **4.2. Project**

### **4.2.1. Standards**

*Developed Recreation:*

1. In lynx habitat, ensure that actions do not degrade or compromise landscape connectivity when planning and operating new or expanded recreation developments.
2. Design trails, roads, and lift termini to direct winter use away from diurnal security habitat.

*Dispersed Recreation:*

1. To protect the integrity of lynx habitat, evaluate (as new information becomes available) and amend as needed, winter recreational special use permits (outside of permitted ski areas) that promote snow compacting activities in lynx habitat.

4.2.2. Guidelines

*Developed Recreation:*

1. Identify and protect potential security habitats in and around proposed developments or expansions.
2. When designing ski area expansions, provide adequately sized coniferous inter-trail islands, including the retention of coarse woody material, to maintain snowshoe hare habitat.
3. Evaluate, and adjust as necessary, ski operations in expanded or newly developed areas to provide nocturnal foraging opportunities for lynx in a manner consistent with operational needs, especially in landscapes where lynx habitat occurs as narrow bands of coniferous forest across the mountain slopes.

## **5.0. SKI AREAS / LARGE RESORTS**

### **5.1. Programmatic Objectives**

When conducting landscape level planning on Umatilla National Forest lands, allocate land uses such that landscape connectivity is maintained.

#### **5.1.1. Standards**

1. Within identified key linkage areas, provide for landscape connectivity

### **5.2. Project**

#### **5.2.1. Standards**

1. When planning new or expanding recreational developments, ensure that connectivity within linkage areas are maintained.

#### **5.2.2. Guidelines**

1. Plan recreational development, and manage recreational and operational uses to provide for lynx movement and to maintain effectiveness of lynx habitat.

## **6.0. FOREST ROADS AND TRAILS**

### **6.1. Programmatic Objectives**

Maintain the natural competitive advantage of lynx in deep snow conditions.

#### **6.1.1. Standards**

1. On Umatilla National Forest lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU. Winter logging activity is not subject to this restriction.

#### **6.1.2. Guidelines**

1. Determine where high total road densities (>2 miles per square mile) coincide with lynx habitat, and prioritize roads for seasonal restrictions or reclamation in those areas.
2. Minimize roadside brushing in order to provide snowshoe hare habitat.



3. Locate trails and roads away from forested stringers.
4. Limit public use on temporary roads constructed for timber sales. Design new roads, especially the entrance, for effective closure upon completion of sale activities.
5. Minimize building of roads directly on ridgetops or areas identified as important for lynx habitat connectivity.

## **7.0. HIGHWAYS**

### **7.1. Programmatic Objectives**

Reduce the potential for lynx mortality related to highways.

Ensure that connectivity is maintained across highway rights-of-way

#### **7.1.1. Standards**

1. Within lynx habitat, identify key linkage areas and potential highway crossing areas.
2. The Forest will work cooperatively with the Federal Highway Administration and State Departments of Transportation to address the following within lynx geographic areas:
  - a) Identify land corridors necessary to maintain connectivity of lynx habitat.
  - b) Map the location of "key linkage areas" where highway crossings may be needed to provide habitat connectivity and reduce mortality of lynx (and other wildlife).

#### **7.1.2. Guidelines**

1. Where needed, develop measures such as wildlife fencing and associated underpasses or overpasses to reduce mortality risk.
2. Evaluate whether land ownership and management practices are compatible with maintaining lynx highway crossings in key linkage areas. On public lands, management practices will be compatible with providing habitat connectivity. On private lands, agencies will strive to work with landowners to develop conservation easements, exchanges, or other solutions.

## **7.2. Project**

### **7.2.1. Standards**

1. Identify, map, and prioritize site-specific locations, using topographic and vegetation features, to determine where highway crossings are needed to reduce highway impacts on lynx.
2. Within the range of lynx, complete a biological assessment for all proposed highway projects on Umatilla National Forest lands. A land management agency biologist will review and coordinate with highway departments on development of the biological assessment.

#### **7.2.2. Guidelines**

1. Dirt and gravel roads traversing lynx habitat (particularly those that could become highways) should not be paved or otherwise upgraded (e.g., straightening of curves, widening of roadway, etc.) in a manner that is likely to lead to significant increases in traffic volumes, traffic speeds, increased width of the cleared ROW, or would foreseeably contribute to development or increases in human activity in lynx habitat. Whenever rural dirt and gravel roads traversing lynx habitat are proposed for such upgrades, a thorough analysis should be conducted on the potential direct and indirect effects to lynx and lynx habitat.

## **8.0. LIVESTOCK MANAGEMENT**

### **8.1. Programmatic Objectives**

In lynx habitat and adjacent shrub-steppe habitats, manage grazing to maintain the composition and structure of native plant communities.

### **8.2. Project Objectives**

Manage livestock grazing within riparian areas and willow carrs in lynx habitat to provide conditions for lynx and lynx prey.

Maintain or move towards native composition and structure of herbaceous and shrub plant communities.

Ensure that ungulate grazing does not impede the development of snowshoe hare habitat in natural or created openings within lynx habitat.

#### **8.2.1. Standards**

1. Do not allow livestock use in openings created by fire or timber harvest that would delay successful regeneration of the shrub and tree components.
2. Manage grazing in aspen stands to ensure sprouting and sprout survival sufficient to perpetuate the long-term viability of the clones.
3. Within the elevation ranges that encompass forested lynx habitat, shrub-steppe habitats should be considered as integral to the lynx habitat matrix and should be managed to maintain or achieve mid seral or higher condition.
4. Within lynx habitat, manage livestock grazing in riparian areas and willow carrs to maintain or achieve mid seral or higher condition to provide cover and forage for prey species.

## **9.0. OIL & GAS LEASING, MINES, AND RESERVOIR DEVELOPMENT**

### **9.1. Programmatic Objectives**

Design developments to minimize impacts on lynx habitat.

#### **9.1.1. Guidelines**

1. Map oil and gas production and transmission facilities, mining activities and facilities, dams, and agricultural lands on public lands and adjacent private lands, in order to assess cumulative effects.

### **9.2. Project**

#### **9.2.1. Standards**

1. On projects where over-snow access is required, restrict use to designated routes.

#### **9.2.2. Guidelines**

1. If activities are proposed in lynx habitat, develop stipulations for limitations on the timing of activities and surface use and occupancy at the leasing stage.
2. Minimize snow compaction when authorizing and monitoring developments. Encourage remote monitoring of sites that are located in lynx habitat, so that they do not have to be visited daily.
3. Develop a reclamation plan (e.g., road reclamation and vegetation rehabilitation) for abandoned well sites and closed mines to restore suitable habitat for lynx.

4. Close newly constructed roads (built to access mines or leases) in lynx habitat to public access during project activities. Upon project completion, reclaim or obliterate these roads.

## **10.0. PUBLIC-PRIVATE LAND OWNERSHIP**

### **10.1. Programmatic Objectives**

Retain lands in key linkage areas in public ownership.

#### **10.1.1. Standards**

1. Identify key linkage areas by management jurisdiction(s) in management plans and prescriptions.

#### **10.1.2. Guidelines**

1. In land adjustment programs, identify key linkage areas. Work towards unified management direction via habitat conservation plans, conservation easements or agreements, and land acquisition.

## **10.2. Project**

### **10.2.1. Standards**

1. Develop and implement specific management prescriptions to protect/ enhance key linkage areas.
2. Evaluate proposed land exchanges, land sales, and special use permits for effects on key linkage areas.

## **11.0. HABITAT CONNECTIVITY**

### **11.1. Programmatic Objectives**

Maintain and, where necessary and feasible, restore habitat connectivity across forested landscapes.

#### **11.1.1. Standards**

1. Identify key linkage areas that may be important in providing landscape connectivity within and between geographic areas, across all ownerships.
2. Develop and implement a plan to protect key linkage areas on Umatilla National Forest lands from activities that would create barriers to movement. Barriers could result from an accumulation of incremental projects, as opposed to anyone project.
3. Evaluate the potential importance of shrub-steppe habitats in providing landscape connectivity between blocks of lynx habitat. Livestock grazing within shrub-steppe habitats in such areas should be managed to maintain or achieve mid seral or higher condition, to maximize cover and prey availability. Such areas that are currently in late seral condition should not be degraded.

#### **11.1.2. Guidelines**

1. Where feasible, maintain or enhance native plant communities and patterns, and habitat for potential lynx prey, within identified key linkage areas. Pursue opportunities for cooperative management with other landowners.

## **12.0. TRAPPING, CONTROL, AND SHOOTING**

### **12.1. Programmatic Objectives**

Reduce incidental harm or capture of lynx during regulated and unregulated trapping activity, and ensure retention of an adequate prey base.

Reduce incidental harm or capture of lynx during predator control activities, and ensure retention of adequate prey base.

Reduce lynx mortalities related to mistaken identification or illegal shooting.

Maintain the natural competitive advantage of lynx in deep snow conditions.

#### **12.1.1. Standards**

1. Predator control activities, including trapping or poisoning on domestic livestock allotments, on Umatilla National Forest lands within lynx habitat, will be conducted by Wildlife Services personnel in accordance with Wildlife Services Annual Work Plan and FWS recommendations established through a formal Section 7 consultation process.
2. On Umatilla National Forest lands in lynx habitat, allow no net increase in groomed or designated over-the-snow routes and snowmobile play areas by LAU. This is intended to apply to dispersed recreation, rather than existing ski areas.

#### **12.1.2. Guidelines**

1. The Umatilla National Forest should work cooperatively with States and Tribes to reduce incidental take of lynx related to trapping.
2. Initiate interagency information and education efforts throughout the range of lynx in the contiguous states. Utilize trailhead posters, magazine articles, and news releases, state hunting and trapping regulation booklets, etc., to inform the public of the possible presence of lynx, field identification, and their status.
3. The Umatilla National Forest should work cooperatively with States and Tribes to ensure that important lynx prey are conserved.







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